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Editor :
SUTINDER SINGH

PRIVILEGES & RESPONSIBILITIES OF A COLLEGE PRINCIPAL

J.N. Kapur*

A college principal has not to be just the administrative head of a college: he has to be the academic leader of an academic community, where an academic community is one which is excited and thrilled by the academic activities of learning, teaching, scholarship and research.

The leader of such a community has himself to be excited, thrilled and fascinated by the exponential growth of knowledge in all disciplines. In fact his love for knowledge should be so intense that all students, teachers and members of the public who come in contact with him, get inspired to learn from womb to tomb and are filled with a desire to become members of a learning society

Once a principal has created a truly academic climate in his college, his task of administrating the college should become easy, since an academic climate implies a keen desire on the part of the students to learn as deeply as possible and a strong desire on the part of the teachers to teach as well as possible.

On the other hand, a principal faces an uphill task if his students are unwilling to learn, if his teachers are unenthusiastic about teaching, if members of the public are interested in getting paper degrees for their children and if the politicians are only interested in exploiting his college for their personal gains

Most principals are today faced with such a situation. What can they do, individually and collectively, to change the situation ? I faced a similar situation when I took over the vice-chancellorship of a relatively young university more than seventeen years ago. My efforts at creating an academic climate may be of some interest to you.

As a first step, I visited all the fifty-five colleges of the University and addressed about sixty thousand students and three thousand teachers within the first three months. I talked of the great revolution in knowledge brought about by the great dedication of students, teachers, researchers, scientists engineers, painters, musicians, social scientists and others. I talked of man landing on the Moon and aiming to go to Mars. I talked of his making bigger and bigger telescopes to penetrate billions of miles into space and of his making electron microscopes to see as small as millionth of a centimeter. I talked of the great powers of the computers and I invited students and teachers to join the great race of excellence and become world leaders in the race. I wanted them to have great academic ambitions and also to have great ambitions in sports and axtracurricular activities. In whatever field they wanted to excel, sky should be the limit for them. I told them that India was great in the past because of its great rishis and maharishis and India would be great again when its teachers become great rishis and its students become like Nachiketas who was ready to sacri-

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**Hony. Visiting Professor, IIT, Delhi and Delhi University.*

fice every thing for the sake of knowledge. The USA, the USSR, Germany and Japan are great today because their scholars are great scholars. I gave them a target for working for fifty-five hours a week and assured a job for everyone who followed this advice regularly.

The second step was to invite some great scholars from other universities to come and speak to teachers and students. These were dedicated scholars of unimpeachable character who were known to be working for 10-12 hours per day. I also invited some missionaries from Rama Krishna Mission and other similar organisations to go round the colleges and help in inspiring students and teachers and in raising their academic morale.

My third step was to organise subject teachers' associations in all major subjects. These were encouraged to hold seminars, symposia and conferences for discussing problems of curricula and of recent dvelopments in individual subjects Some of these associations started their own journals. There was a healthy rivalry for excellence among these associations and a large number of teachers found a leadership role in these associations The silent majority of academically motivated teachers who had no role in the teachers associations of the trade union type began to assert themselves and worked unitedly for the academic growth of the University I myself went to these conferences and symposia and took an active part in their deliberations. I used to prepare hard for each of these conferences and used my big personal library for this purpose. As an example, once I had to address a conference of psychology teachers. I spent a whole night reading the report of ICSSR committee pointing out the weaknesses of present psychology research in India and suggesting new thrust areas for research. Next day when I spoke at the conference, everybody was impressed by my depth of knowledge of psychology. They were even more impressed when I told them of the way I had acquired that knowledge. A vice-chancellor or a principal has to address a number of meetings in all subjects. He should aim to make a fresh set of remarks at every meeting. He can do so if he continues to read and keeps himself abreast of advancing frontiers of knowledge.

I also insisted that students subject associations in every college should be active academically. Whenever a college teacher met me, I asked him how his subject association in his college was doing. In fact very often the teachers would try to get my favours by generating academic activities among their students.

Amother step I took was to insist that there should be perfect fairness in admissions and they had to be made strictly according to university rules. All reservation of seats for vice-chancellor, principal, members of the boards of managements were given up at one stroke. The principals had a hard time in the first year in enforcing strict adherence to impartiality, but from the next year, they had no pressures, once the public became convinced that impartiality principle was being so ruthlessly followed that even the Chancellor's and the Chief Minister's recommendations could be turned down.

I had also to be very strict about appointments of teachers and had to turn down recommendations from very high quarters, but I did not create a single enemy because nobody really minds if you do not accept any recommendation at all. The trouble arises when you yield to even one recommendation I declared publicly again and again that my job was to find the best teachers for the students of the University wherever I could find them. My job was certainly not to provide jobs for the 'sons of the soil' or for those with influence.

I still insist that the best administrator is one who is one hundred per cent impartial (here ninety-nine per cent would not do). A principal has to train his students in courage, fearlessness, fairplay, justice and truth and he cannot do so if he himself yields to pressures and compromises with his principles. The moment his students and teachers know that the principal can yield to pressures, his moral authority is over.

I had, no doubt, my share of student demonstrations when papers were out of course or when teachers did not teach properly or when politically motivated students became student union leaders. I had however announced it publicly that I would not accept any demand from students or teachers, which tended to lower standards. The students and teachers readily agreed to this condition, but very soon they found that most of their demands tended to violate this condition. However the insistence on standards created an awareness of need for standards. I insisted that a university with low standards is no university and its degrees were worthless. The only way to raise

(Continued on page 7)

A New School of International Studies

M. S. Rajan*

For many years, I have been pointing out the inadequacy in India of study, research and publication on international affairs and foreign countries/regions. Ten years ago, at the Seventh Rajasthan Political Science Conference held on 25th February, 1978, I spoke of the need for the "establishment of a few more University Departments or Schools of International Studies easily accessible to those young men and women who aspire to specialize in International Studies. India's large size, and the principle of federalism itself, do call for a wider and more even distribution of such departments/schools through the length and breadth of the country." The establishment towards the end the year of a Second School of International Studies, by the Pondicherry University, calls for academic notice of a welcome development in university education in the country.

One of the serious lacuna in the Indian university system, and for a country of India's size, has been the very limited provision for teaching, research and publication for international affairs and area studies At present, there is only a single School of International Studies (at the JNU) and a single University Department of International Relations (at the Jadavpur University, Calcutta) In other universities (and research institutions) there are one or two courses on these subjects, apart from some area study programmes. This is a pitifully small provision in a country of India's vast size and also a poor reflection of the wide range of India's foreign policy and relations.

"This inadequacy of study, research and publication on international affairs and foreign countries has grave implications for public policy, of which there does not seem to be enough appreciation either among intellectuals, the Press or among the Ministries of External Affairs, Defence and Commerce, which are primarily concerned with the formulation and implementation of India's external policy and relations with other members of the Community of Nations. There is very little public discussion, within and without Parliament, of international affairs and India's attitude to, or role in it. What little discussion there is from time to time, is perfunctory and *ill*-informed. Universities and research institutions care to take little or no initiatives to promote public discussion of current international problems; the Government, especially the Ministry of External Affairs, takes even less interest or initiative to promote such a public discussion (i e. outside Parliament). Neither academic institutions nor the Government publish or make available, enough documentation to enable informed public discussion of current problems. This is especially true on security and defence matters. Hardly two or three universities have any provision for study and research on security and defence problems; there is not enought of it even in my own School of International Studies." (*Rajasthan Political Science Conference, 1978*) Of course, the situation has improved considerably since I said this ten years ago.

It is true that the University Grants Commission, the Indian Council of Social Science Research, the Indian Institute of Foreign Trade, the Institute of Defence Studies and Analysis. the Indian Society of International Law (and such other institutions) have been promoting, each in its own way, area studies and international affairs. But, all this does not amount to much. What is more, any youngmen/women who have to study these subjects needs must go to Delhi, far away from their places of residence. The provision in these existing institutions has not also expanded over the years (even in the SIS/JNU) commensurate with the increasing numbers of those who are interested in studying these subjects.

In this context, the proposed opening of a second School of International Studies by the newly-established, Central University, the Pondicherry University needs to be commended. As of now, the provision in the University of just nine positions (two Professorships, four Readerships and three Lecturerships), is modest, but good enough to start with. They are limited broadly to International Politics, International Economics, International Law for M Phil. degrees. No doubt, in course of time, it would expand the scope of studies, especially into area studies, like, Indian Ocean Studies, relations with the EEC countries (including relations with France) and South and South-east Asian Studies. The University is planning

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**Formerly Director of the Indian School of International Studies (now, School of International Studies, Jawaharlal Nehru University). He is presently a Professor Emeritus of the University.*

to build-up library facilities to support all these studies. The University is taking scholars from different traditional disciplines, and on an all-India basis.

There are some additional reasons why the opening of a second School of International Studies needs to be welcomed. For years, there have been few opportunities of career advancement and mobility for scholars in these fields, including the SIS/JNU scholars; the new School ought to meet partly this need. In the absence of adequate opportunities, facilities in these fields in universities and research institutions, those trained in international affairs and area studies were unable to teach or do research in their respective fields of specialization; they drifted into teaching in traditional disciplines, like political science or history. This is a great loss of specialization and expertise in International Affairs and Area Studies.

Secondly, in the absence of these opportunities (and therefore competitiveness) there is a tendency towards smugness among scholars in these fields with their scholarly achievements so far. In the absence of a large number of other scholars specializing in respective fields, there is also no way of comparing the achievements of these scholars with those of other institutions. During the next few years, this lacuna will, hopefully, be removed.

Finally, it is good that the proposed new School is planning to invest heavily in library resources on international affairs, so that, in the coming years, scholars in the South specializing in international affairs need not have to travel all the way to Delhi or Calcutta to complete their research work. ☐

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K. Srinivasan
DIRECTOR

DISTANCE TEACHING UNIVERSITIES

P. Satyanarayana*

Distance Education ?

Distance education is a generic term. It includes a wide range of teaching-learning strategies. Distance teaching refers to institution's role while distance learning refers to student's role in the process. Distance education, thus, encompasses all the activities of teaching-learning at distance. Distance, in the context of education, means that the student and teacher are separated and not face-to-face. Two-way communication occurs between a learner and teacher despite the fact that they are not face-to-face. How the two-way communication takes place ? It is established by one or more of available media For this reason we exclude things such as 'programmed learning texts' and 'teach yourself' books from the scope of distance education Similarly educational broadcast audio visuals and non-broadcast audio-visuals, on their own, are not forms of distance education. However, any of these may be a part of distance education if they are linked with some kind of two-way communication. We see some colleges and schools using radio, television, audio cassettes, video tapes, computers either to support teaching in the classroom or to perform the function of classroom teacher These technologies are not distance education. Thus, two-way communication is must in any activity of distance education.

The term distance education is a fairly recent one, but the concept it expresses is at least 150 years old. It is a gradually accepted term It gained formal recognition in 1982 when the four decades old International Council for Correspondence Education changed its name to the International Council for Distance Education The primary reason why the term distance education has come into being is that the word correspondence education by which distance education was known earlier is felt to be associated exclusively with the printed word, whereas now a days various non-print media supplement the written word in what is now called distance education.

Distance education has been variously defined. There is no single definition acceptable to many Charles Wedemeyer, Young, Erdos, Michael Moore, Otto Peters, Borje Holmberg, John Baath, Hilary Perraton and Desmond Keegan greatly contributed towards developing and defining distance education. In general the term distance education "covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, neverheless benefit from the planning, guidance and tuition of a tutorial organisation." Desmond Keegan has given a comprehensive general definition, which is a synthesis of most of the definitions. Keegan identifies seven principal characteristics of distance education : (1) the separation of teacher and student, (2) the influence of an educational organization, (3) the use of technical media, (4) the provision of two-way communication, (5) the absence of group learning, (6) the industrialisation of the educational process, and (7) the privatisation of learning.

Distance education is presently well recognised and accepted. Yet emotionally many of the academics and administrators of formal system do not accept the distance education system. Emotionally there is still a strong belief that on campus teaching in the face-to-face situation is the only way of teaching. As Lord Perry the first Vice-Chancellor of the British Open University expressed. "it may take decades rather than years to overcome this emotional reaction. We remember that every advance in education has been resisted for years and years."

The Users

Distance education is used at all levels of education—primary, secondary and tertiary—as well as in the non-formal sector of education.

It is not widely used in primary level to teach young children because they need intimate contact with a teacher to assist and support them learn, but it is used to teach primary level education to adults. The radio schools of Latin America are good examples of primary level adult education at a distance. Distance education is widely used at the secondary level. Air Correspondence High School in South Korea, School of Air in Australia, Telesecundaria in

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**Regional Director, Indira Gandhi National Open University Regional Centre, CESS Building, Begumpet, Hyderabad-500016*

Mexico and National Extension College in the U.K. are known examples of secondary level education at a distance. Distance education has also been used at the tertiary level. In the early period it is used by formal universities which teach students face-to-face—called by Desmond Keegan as the mixed model of distance education, University of Wisconsin in USA, Universities of New England, Queensland and Deakin in Australia, Universities having institutes of correspondence education, numbering about 35, in India are examples of distance teaching at university level.

Distance Teaching Universities

In 1970s a good number of universities and other higher education institutions were set up in both the developed and developing countries specifically to teach at distance. The founding of the British Open University marked the beginning of a new and prestigeous era in the history of distance education. There are now many independent, autonomous, full-fledged distance teaching universities in the world. Some of them are : (1) Open University (UK), (2) Allama Iqbal Open University (Pakistan), (3) Athabasca University (Canada), (4) Everyman's University (Israel), (5) Fern Universitat (West Germany), (6) Free University (Iran), (7) Sri Lanka Open University (Sri Lanka), (8) Sukhothai Thammathirat Open University (Thailand), (9) Central Radio and Television University (China), (10) University of Air (Japan), (11) Kyongi Open University (Korea), (12) Korea Air and Correspondence University (South Korea), (13) Open University (Netherlands), (14) Universitas Terbuka (Indonesia), (15) Universidad Nacional de Education a Distancia (Spain), (16) Universidad Estatal a Distancia (Costa Rica), (17) Universidad Nacional Abierta (Venezuela), (18) National Open University (Nigeria), (19) Al-Quds Open University (Jordan), (20) Andhra Pradesh Open University (India), (21) Kota Open University (India), (22) Nalanda Open University (India), (23) Indira Gandhi National Open University (India).

Distance Teaching Universities' Students

Distance teaching universities provide education at a distance for the following :

(a) school leavers who are qualified for traditional university entry but cannot be admitted because of non-availability of required places in traditional universities and colleges;

(b) adults who desire to acquire university level qualifications but cannot or choose not to apply for entry to a traditional university because they: (a) lack the education qualifications required for entry, (b) have family commitments, especially young children, which tie them to their homes, (c) are in full-time employments and cannot or choose not to give up their jobs, (d) live in institutions (e.g. the handicapped) which they are unable to leave, (e) prefer to study independently;

(c) professional and manpower groups who require vocational training, professional updating and increased knowledge levels but cannot be released from their employments to attend a campus based university or training colleges; and

(d) adults who wish to pursue lifelong learning opportunities (continuing education) unrelated to the pursuit of degree or diploma or certificate level qualification.

Objectives

Distance teaching universities are founded for the broad purpose of expanding and enlarging the higher educational opportunities. Borje Holmberg gives the following five reasons for setting up the distance teaching universities :

(a) the need felt in many countries to increase the offer of university education generally;

(b) a realisation that adults, with jobs, family and social commitments constituted a large group of prospective part-time university students;

(c) a wish to serve both individuals and society by offering study opportunities to adults, among them disadvantaged groups;

(d) the need found in many professions for further training at an advanced level;

(e) a wish to support educational innovation;

(f) a belief in the feasibility of an economical use of educational resources by mediated teaching.

Distance education emerged in the 1970s and early 1980s as a valued component of many national educational systems in both developed and developing countries. The foundation of the open universities, developments in communication and information technologies, a new sophistication in the design of print materials and improved support systems for the student learning at a distance- all these contributed to the larger *availability and greater variety of distance education.*

Open Universities

Distance teaching universities are called by different names such as Universities without walls, Television Universities, Universities of Air, Correspondence Universities, etc. The British Open University was to be originally an 'University of Air'. The word 'Open' in Open University reflects openness- openness with regard to students, openness with regard to place of study, openness with regard to pace of study, openness with regard to courses and openness with regard to completion of studies. Openness of the University implies that : it does not preclude students from entering the higher education sector on account of lack of prior formal academic qualifications; its education process is not classroom based but home based; its students can study at their own pace and place; its courses are flexible and interdisciplinary; it offers scope for independent choice of courses and application of effort; it puts less constraints on the time of completion of studies; and its teaching method utilises all the possible communication and information technologies.

This 'openness' is the cardinal feature of the distance teaching universities. It is often said that the British Open University's "uniqueness lies not merely in its application of modern communication technology, but also in its philosophical concept of openness." ☐

Privileges and Responsibilities of a College Principal

(Continued from page 2)

the worth of the degrees given by a university is to strive continuously for raising its standards and this is in the best interest of students and teachers.

I believe that the main argument for autonomy to a college is to give it an identity, to enable its teachers and principal to raise its standards high and to feel proud of their institution. This pride in the institution to which a student, a teacher or a principal belongs is important for building up a great institution. When a principal, his students and teachers get a feeling for the attainments of their institution, they would not tolerate any outside interference.

I still believe that being a principal is as great a responsibility as it is a privilege.

A principal has to love teaching and he has to set an example of good teaching. A principal has to love scholarship and he has to set an example by being a scholar. A principal has to love creation of new knowledge and he has to set an example for it. A principal has to have a keen desire to serve the community and he has to set an example for it. A principal has to be dedicated to courage, fairness, justice and fearlessness and he has to set an example for these. Above all, a principal has to love his students and teachers and do everything possible in his power for their welfare. A principal has to take special care of weak and poor students. A principal has to be a great rishi because so many persons look to him for inspiration and guidance.

Finally, a principal must have a great vision for his college and should work hard with great zeal, faith and conviction for making that vision a practical reality.

The country needs today not exhortions and speeches; it needs examples of men of great character, great dedication, great scholarship and great hearts. Lubricate your administration with love of students, of teachers, of scholarship and your country and humanity. India will have a bright future if we have faith in it. Your responsibility and privilege is to prepare leaders for the India of your dreams.

Approaches to Agricultural Planning

Contrasting the approach to agricultural planning, that is by and large followed at the national level, which is capital-biased with inadequate absorption of labour force in production, tends to shut the democratic participation of people and centralise the process of formulation of agricultural plans with the alternative strategy of agricultural planning being attempted in West Bengal over the last decade or so, Shri Jyoti Basu, Chief Minister, West Bengal, said, "within the limitation of the existing socio-economic structure, this alternative approach begins, on the basis of the strength of democratic movements of the common people, by trying to reorder, to the extent possible, the existing unequal distribution of land. In other words, it begins with redistributive land reforms." Shri Basu was delivering the Convocation Address at the 6th Annual Convocation of Bidhan Chandra Krishi Vishwavidyalaya. "This emphasis on land reforms, it may be noted, is not an exercise in charity, but is essentially a productive move on the basis of hard evidence of superior production performance on the part of poorer working peasants," he added. Excerpts

Convocation

At the present moment, in my view, there are two alternative approaches to applied agricultural planning in our country. In one alternative approach, which is broadly followed at the national level, planning for agriculture begins by making no serious attempts to alter the existing unequal distribution of land. Persisting inequality in the ownership distribution of land at the national level has been noted in the latest Round of the National Sample Survey which shows that, for the country as a whole, only about 29 per cent of land is under the ownership of small and marginal farmers, and the remaining 71 per cent is owned by bigger farmers. As a consequence, in this approach, planning for production has tended to be viewed through the eyes of the landed gentry in agriculture. There has been, as a result, also a tendency to adopt a technology which is capital-biased with inadequate absorption of labour force in production. That such technologies may fail to absorb labour in production process has been noted in the recent Mid-Term Appraisal of the Planning Commission. The result is unemployment and insufficient generation of purchasing power of the common people in rural areas. But, then, more than 75 per cent of the common people in our country live in rural areas. Their insufficient purchasing power also means inadequate demand for industrial goods, and that acts as the major bottleneck on the growth of our industries. Agriculture should be looked upon as *providing the basic* foundation of our economy. Unless the purchasing power of the vast *majority of the people connected* with agriculture and allied activities is improved, market for *industries will remain restrained* and industries will not thrive.

When this is the social context, and this is the approach to agricultural planning, then agricultural research work which is tied up with this approach also often tends to be unduly biased in favour of over-use of capital in agricultural production, and without any serious attention to the need of absorption of labour force in agriculture. To put it different, a research culture gets encouraged which seems tilted towards indiscriminate adoption of so-called "foreign" technology, forgetting their inappropriateness in our social context and forgetting the much needed employment-orientation in the technology.

This entire approach is thus one of staying away from the aspirations of the vast majority of people. There has accordingly been an inherent tendency in this approach to shut the democratic participation of people out from the process of planning and to centralise the process of formulation of agricultural plans, including even the research programmes.

As an alternative to this strategy, a different approach to agricultural planning has been attempted in West Bengal over the last 10 years or so. Within the limitation of the existing socio-economic structure, this alternative approach begins, on the basis of the strength of democratic movements of the common people, by trying to reorder, to the extent possible, the existing unequal distribution of land. In other words, it begins with redistributive land reforms.

This emphasis on land reforms, it may be noted, is not an exercise in charity, but is essentially a productive move on the basis of hard evidence of superior production performance on the part of poorer working peasants. In this context, I may mention, with modesty, some of the advances that have been made in recent years to give our State the front position in the country in the sphere of land reforms. With the involvement of people through the Panchayats, and the administrative support, it has been possible till the end of December, 1987 to vest about 12.56 lakh acres of agricultural land Nearly 17 27 lakhs of poor households have benefited from the distribution of vested land. It may be noted that of the total agricultural land distributed through land reforms in India, about 20 per cent has been contributed by West Bengal, although in the total agricultural land in our country, West Bengal's share is less than 4 per cent With the implementation of land reforms in West Bengal, according to the National Sample Survey data (the same source as mentioned before), nearly 60 per cent of the total land has come to be owned by the small and marginal farmers This has to be contrasted with the all-India situation where, as noted before, according to the National Sample Survey data, only about 29 per cent of land is owned by the small and marginal farmers. In West Bengal, in addition, the number of recorded bargadars has also increased to 13.75 lakhs by the end of December, 1987 If the land under barga cultivation is properly added to the land owned by the small and marginal farmers, then the proportion of total land over which the poorer farmers have certain operational control, will in fact, far exceed the previously mentioned figure of 60 per cent. Thus, through implementation of land reforms, an objective condition, very different in the all-India context, has now been created in our State where the entire planning of agriculture can be looked at through the eyes of the poorer working farmers

When the problem is viewed from the standpoint of common working farmers, then a different priority emerges in the provision of non-land inputs such as seeds, irrigation, fertilisers, etc. We consider that for making land reform measures effective, provision of these inputs through a socially appropriate choice of technology is absolutely essential. What should be the characteristics of this appropriate technology ? The working farmers are endowed with labour power and there is, in rural areas, often a relative abundance of local resources The appropriate technology in this social context will have to be inherently modern, but with a different objective It should make efficient, improved and fuller use of labour and local resources. To this end, a new orientation in scientific agricultural research may be required. I appeal to the students, teachers, researchers and also non-teaching staff of Bidhan Chandra Krishi Viswavidyalaya to take up this scientific challenge. This may be a new step for the entire country.

For instance, we need to pay special attention to the socially optimum choice of cropping pattern. An emphasis has to be given on improved early-maturing aman paddy, so that adequate time is obtained for subsequent crops. It is important to have appropriate needs which are suitable for our low-lying areas and rainfed conditions, and, at the same time, can show quicker and improved yields. It is equally important to have these seeds grown, as far as possible, within our State. Can we also give more attention to the growth of horticulture ? We also need to extend further application of research in relation to cultivation of various crops and horticulture to areas like Sunderbans and other relatively less fertile lands in the different districts It may be worthwhile to examine how far the vested lands, which have now been decided to be given to the Panchayat Samitis, may be used for cultivation of special crops, etc. suitable for such lands. Similarly, in the sphere of fertilisers, instead of relying only on chemical fertilisers, can we not think of an "optimum" mix of chemical and bio-fertilisers, where the bio-fertilisers can be developed by using local resources ?

In the sphere of irrigation, which is one of the most crucial inputs for higher agricultural production, our emphasis is on extension of minor irrigation facilities particularly those which are labour-intensive and local-resource-based Along with this, expeditious completion of existing large irrigation projects is essential. Here, I cannot help mentioning an issue relating to the completion of the Teesta Project, which can vastly improve agricultural production in five districts of North Bengal. It is a project not only of regional concern, but also of national importance, and therefore with a justifiable claim for the Central financial assistance. The State Government has already spent more than Rs 200 crores on this project, but the Central Government has not spent more than a paltry sum of Rs. 5 crores despite our repeated requests. On this issue, when one recalls the generous Central support for building up of the irrigation network for Northern India, one feels a sense of relative neglect for eastern region.

In spite of this lack of Central support, we have tried, within our limited financial resources, to extend the irrigation facilities and facilities regarding other inputs, and then co-ordinating these with land reform measures. As a result of this co-ordinated approach, beginning with land reforms and then supporting provision of other inputs, it has been possible to increase the State's agricultural production in recent years. The total foodgrains production of the State has increased from 91.28 lakh tonnes in 1985-87 to 96.26 lakh tonnes in 1986-87 which is not only the all-time record production for the State, but it also includes in itself rice production of 84.63 lakh tonnes which has accorded our State the first position among all the States in respect of rice production in that year. Along with the level of total production, productivity of foodgrains per hectare in West Bengal has also been 1,530 kgs/hectare against the national average of 1,142 kgs/hectare and that of rice 1,574 kgs/hectare as against the national average of 1,482 kgs./hectare in 1985-87. In the current year 1987-88, despite the severe floods, the production of aman rice has already exceeded the production level of the last year, and it is expected that the total foodgrains production of this year may reach and even exceed the last year's record production of total foodgrains. Incidentally, in recent years the production of oilseeds in our State has also shown a remarkably rising trend.

Since attempts have been made to use labour in the production process as far as possible, there has been, along with increase in agricultural production, also an increase in recent years in the average wage rate for agricultural workers in the State, the average daily wage rate, cash and kind together, increasing from about Rs. 5.60 in 1976-77 to more than Rs. 13 in recent years. In some of the districts in South Bengal, the average daily wage rate has even crossed Rs. 20 in some parts of the year.

As a result of this improvement in the economic condition of the poorer sections in rural areas, there has been a related growth of cottage and small-scale industries which are linked with agriculture and which produce mass consumption goods such as handloom products. Over the last ten years, growth of registered small units has been significant in the State—from a figure of less than 1 lakh in 1976-77 to the present figure of about 2.5 lakhs. The production in the handloom sector has also nearly doubled itself over this period. This production increase in the small-scale, we think, needs to be strongly supported by the growth of large industries as well. Our endeavour is to draw younger people to industries. In this endeavour, I am sorry to say, we are not getting the needed co-operation from the Central Government.

Since all these production activities are centred around the aspirations and interests of the common people in the rural areas, we have decided to involve the local people through the elected Panchayats in formulation and implementation of plan schemes in all the sectors of rural economy, beginning from land reforms, through provision of irrigation and other facilities to the sphere of small-scale industries and other sectors. Recently, this involvement of the people has been further co-ordinated through the setting up of the District and the Block Planning Committees, with representation of both the elected Panchayat and the other representatives as well as the officials of all the concerned departments of the respective levels. Decision-making in relation to nearly 40 per cent of the State Plan budget has been decentralised in this manner to the district and the block level. Within the overall understanding of priorities, this delegation of powers may now be extended to 50 per cent of the total plan budget in very near future.

When the new research activities will be carried out by the Bidhan Chandra Krishi Viswavidyalaya, it will be necessary to test the knowledge at the field level and have the feed-back on a regular basis. I suggest that this two-way interaction between the researchers in the University and the common farmers in the field be co-ordinated through these district and block-level Planning Committees along with the necessary support of the Department of Agriculture.

There is sometimes a resistance among some of our young people belonging to different disciplines to go to the villages. But for agricultural graduates and research workers, despite inconveniences, motivation and purpose in life must be not only to work in the villages but to earn the respect and love of the peasant community. They must carry the results of new knowledge to the farmers, and at the same time, try to learn from the farmers in the field.

With the new alternative social perspective in this State, and this organisational framework involving the common people, there is a refreshing challenge before the entire community of the University—the researchers, teachers, non-teaching staff and students, and particularly those among you who are at the threshold of applying your knowledge. I trust that you will accept this challenge. □

Methods & Techniques of Teaching Values

A 4-week All India workshop on 'Methods and Techniques of Teaching Values' was organized at the Department of Teacher Education, D.A.V. College, Dehra Dun. The objectives of the workshop were to familiarize and practise various traditional and modern methods and techniques of teaching values at college and university level and also to prepare a value education kit for teaching values to be used by teachers of the colleges and universities.

Sponsored by the University Grants Commission, the workshop was inaugurated by Swami Chhama Nand Maharaj of Rama Krishna Mission. Dr. S.P. Kulshrestha of the Deptt. of Teacher Education, D.A.V. College, Dehra Dun, who was also the director of the workshop, presided Prof H.H.A. Borai, Vice-Chancellor, Garhwal University, Srinagar delivered the keynote address on value education and role of teachers at college and university level. Lecturers, Readers and Research Fellows from over 15 universities in the country attended the workshop

The topics discussed at the workshop included Meaning and nature of values; Development of Value education and value crisis, Value education, Value inculcation programmes and value teaching; National Policy of Education in relation to value education; Identification methods of values; Traditional methods of teaching values like oral preaching, sermonising, stories with morals, biographies, exhortive writing, Assembly programmes, formal study programmes, social service programmes, cocurricular and cultural activities, Trainees' services and projects, etc.

Modern value clarifying approaches for value development were also discussed in detail. The techniques like critical incident sheet, value activity love list, value games, value voting, value continuum, incomplete value sentences, role playing, meditational counselling and fantasy exploration, etc. were also dealt at length alongwith demonstrations.

Four value education kits, namely, for teaching Social, Punctuality, Scientific and National Values, were prepared by the participants during the course of the workshop. Each value was analysed in detail and defined operationally. All relevant characteristics were identified. Behavioural dispositions related to each value were discovered and framed under kit. The behavioural objectives, methodology, activities, teaching strategies, teaching/learning material, evaluation scheme, etc. were finalized after an indepth discussion for each value kit. General guidelines for using these kits were also formulated.

The following recommendations emerged at the workshop :

1. There should be empirical evidence to change the prevailing education system based on value education through research.

2. System approach through different agencies towards value teaching value development and the whole process of education should be oriented towards value education.

3. The Central & State Governments should take immediate steps to introduce value education in all the institutions.

4. Voluntary organizations may conduct value orientation programmes for the students, teachers and parents and prepare teaching-learning material for value education.

5. A separate Teacher Training University be established in every state wherein value education programmes should be made an integral part of the teachers training programmes.

6. UGC and NCERT should make provisions for value oriented education throughout the country with a flexibility in approach. However, the UGC should take a lead in introducing value education programmes for teacher at higher education level belonging to all the faculties.

7. Research in value education regarding prioritization of values, curriculum development, methodology, and evaluation strategies should be given priority.

8. A Foundation Course in value-education at higher education level should be introduced.

9. Educational Technological Approach should be adopted to make value education programmes more effective.

10. Teacher orientation programmes should be taken up at the national, state, regional and district level to train teachers in the effective methods of development of values among students.

11. SCERT, State Universities and voluntary organizations should be given responsibility of producing literature and teaching learning material especially designed for value education programmes in regional languages.

12. College and university management should plan and provide activities having social relevance during the academic year as well as during holidays with a real spirit of Social Service. It should be made obligatory to students to par-

ticipate in atleast three activities and a certificate may be awarded. The environment of colleges and universities should be designed in a way which may help students and teachers to identify, understand and internalize the relevant and desirable values.

13. Parents should invariably be involved in value education programmes at higher education level. They should also be informed about various value activities/value programmes to be undertaken at the college or university.

14. Value Education Kits should be prepared for each important value and should be validated scientifically. They should be distributed free of cost to the colleges and universities. The teachers should be encouraged to make use of these kits effectively. UGC, AIU, NVC, NCERT, etc. should be called upon to organize training courses for preparing, adapting and using these kits effectively.

15. Whatever relevant is there in ancient system of Indian education, may be adopted in modern context as guidelines, and base for value development programmes in the country.

16. Evolutionary nature of values should be kept in mind while organizing value development programmes. Value education should be viewed in the context of present situation of man and his changing environment.

17. Detailed guidelines, uniform throughout the country, related to value teaching and value development programmes should be prepared and made available to teachers who should be motivated to use these guidelines effectively at higher education level.

APOU Building Complex

Dr. Shankar Dayal Sharma, Vice-President of India, said that the Open University System was an innovative endeavour. Unlike the conventional system, the Open University has greater latitude in admission criteria, low fees, large scope for choice of subjects and flexibility in course duration. With proper overall management and systematic use of media, the Vice-President said, the Open University system would prove to be very successful in future, more particularly in the Indian context. Dr. Sharma was speaking after laying the Foundation Stone of the Building Complex of the Andhra Pradesh Open University (APOU) in Hyderabad recently.

Dr. Sharma called upon the universities to give importance to ethics and morality in education. He expressed concern at the erosion of moral values and asked the Andhra Pradesh Open University to examine the possibility of introducing Orientation Courses on ethics and moral codes within the curriculum. The Vice-President recalled the observation made by Dr. Radhakrishnan Education Commission which said, "If we concentrate only on giving education and neglect the development of mind and spirit, we will be like the rakshasas of our mythology who have enormous power without any overriding ethical purpose". Dr. Sharma further said that those involved in the management of university education in the country should never lose sight of this important matter. He made a special appeal to APOU to introduce courses in Agriculture, Poetics, and Fine Arts and also some courses for retired persons under the Open University system.

In his presidential address, Shri N.T. Rama Rao, Chief Minister of Andhra Pradesh, said that the government was giving special importance for the cause and promotion of education. He said that four universities were started during his tenure i.e. the Andhra Pradesh Open University, first of its kind in the country; the Telugu University for the promotion of Art and Culture; the Mahila University for Women's Education; and the University of Health Sciences. A fifth university, namely, 'Grameena University' to focus the concept of Rural Development as envisaged by the Father of the Nation, Mahatma Gandhi was also being planned, he said.

Prof. G. Ram Reddy, Vice-Chancellor, Indira Gandhi National Open University, who was a Special Invitee, said that the foundation Stone Ceremony was the beginning of the fulfilment of a dream. He said that future belonged to distance education and the same was catching up in the third world countries.

INFOTEK National Conference

The Institution of Information Technology (INFOTEK) will organise a National Conference on 'Applications of Mini and Micro Computers in Documentation, Information and Libraries' on 28-30 September, 1988 at the Central Leather Research Institute, Madras. The topics proposed to be discussed at the conference include Compilation of tools for information handling : Thesaurus, Bibliography, Directory, Union Catalogue, etc; Design and development of bibliographic databases : Standard formats, CCF and software techniques for creating the formats; On-line search and retrieval of information : Experiments, experience and future prospects;

Specific bibliographic information handling software packages : case studies—CDS/ISIS, MINISIS, etc ; Data Base Management System (DBMS) : Applications—dBASE II, *III and III +, UNIFY, etc.: Library* automation; Integrated Information Systems/networks : national, regional and international; and Constraints and problems in the development and/or implementation.

Further details with regard to participation may be obtained from Mr. R Vengan, Convener, INFOTEK Conference, No. 57, Scientists' Apartments, CLRI Staff Quarters, Adyar, Madras-600 020.

Course in Computer Applications

The L. N. Mishra Institute of Economic Development and Social Change, Patna, is reported to have been selected as one of the nine centres in the country for starting a three-year full-time Master's degree course in "computer application" (MCA) This is in recognition of the excellence achieved by the Institute in management education

The Institute, affiliated to the University Grants Commission (UGC) and recognised and aided by the Ministry of Human Resource Development, is already collaborating with the School of Business, Queen's University at Kingston (Canada) and the prestigious Ahmedabad based Indian Institute of Management. Set up initially as the Bihar Institute of Economic Development, it was remodelled as Centre of Business Management Education and renamed in 1975 as the L.N. Mishra Institute of Economic Development and Social Change.

CAD/CAM Centre

A Computer Aided Design and Manufacture (CAD/CAM) Centre is being set up at the Thapar Institute of Engineering and Technology (TIET), Patiala in the Department of Mechanical and Industrial Engineering with a special grant of Rs. 13 lacs from the Ministry of Human Resource Development, Government of India. Three Omega CAD work stations have been purchased along with the following softward : Pro-DRAFT (2D/3D drafting package), 3-D Solid Modeller, GIFTS (FEM Package), XL-NC (NC Package), and Pro-FEM.

The purpose of the Centre will be the use of existing packages and

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Attention Scientists and Technologists

Indian Expertise in Science and Technology

The Research Cell in Economics of Education of the Association of Indian Universities is conducting a survey of Indian expertise in science and technology in the University sector. It is proposed to *prepare a comprehensive database of the skills, knowledge and* facilities of the university level institutions as well as a directory of experts in various disciplines of science and technology. The survey is also intended to catalogue the expertise and current research work of Indian scientists and technologists in various fields of science and technology, and will be used as an input for the compilation of a comprehensive database on the scientific *and technical manpower in the country. The database will provide* a ready reference to the industry, commerce and allied sectors of Indian economy for identifying experts in the relevant fields.

The scientists and technologists engaged in teaching and research in the universities and university level research institutions in India **at the lecturer or equivalent and above levels only** are requested to fill-up the prescribed form, which can be had from the undersigned. The completed form should be returned latest by **September 30, 1988.**

The responses from the academic and research staff are solicited, and their cooperation would be highly appreciated in our venture to build up a comprehensive database.

For the prescribed form, kindly write to :

M M Ansari
Joint Director
Research Cell, Economics of Education
Association of Indian Universities
AIU House, 16 Kotla Marg
NEW DELHI 110 002

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developing/modifying packages for individual requirements. These facilities will be useful for introducing the concept of CAD/CAM, a fast growing area in today's technology, to the students and personnel from Industries.

SNDT Offers New Courses

The Department of Continuing and Adult Education and Extension Work of the SNDT Women's University proposes to start diploma courses in adult and continuing education, travel and tourism, banking, interior decoration, modern journalism, photography, conversational English, designing, gemmology and Marathi journalism. Further details can be had from the university's department located at 1, Nathibai Thackersey Road, Bombay 400 020.

Video Cassette Released

Prof. S.K. Khanna, Secretary, University Grants Commission (UGC), recently released a Video Cassette on Distinguished Visiting Faculty developed by the Academic Staff College, Andhra University. The Cassette contains 7 lectures delivered by eminent academicians of the country relating to education, society and development. The Cassette will be exchanged with other staff colleges in the country to disseminate learning material for orientation programme of college lecturers.

Computer Literacy Course

The Computer Resource Centre at Thapar Institute of Engineering and Technology (TIET), Patiala conducted a 3-week Computer Literacy Course for School Teachers under CLASS (Computer Literacy And Studies in Schools) Project. The objective of the course was to familiarise the teachers with the range of computer applications in all walks of human activity and the computer's potential as a controlling and information processing tool.

Thirsty five teachers from 10 schools, participated in the course.

News from Agril. Varsities

Training on Gasifiers

The School of Energy Studies for Agriculture of the Punjab Agricultural University (PAU), in collaboration with the Indian Council of Agricultural Research (ICAR) and Department of Non-Conventional Energy Sources, Government of India, organised a specialised training course on Biomass Gasifiers. The first of its kind organised on a national level, the course included lectures on various aspects of biomass gasifiers, practicals on operation and testing of these gasifiers and also field visit to see the installation of gasifier working at one of the Saw Mills of the Punjab State Forest Development Corporation at Patiala. The lectures were given by the eminent faculty drawn from nationally renowned institutions and also faculty of School of Energy. Dr. Bill A. Stout, a world renowned Energy consultant from U.S.A. also attended.

Presiding over the concluding function, Dr. Sukhdev Singh, Vice-

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ASSOCIATION OF INDIAN UNIVERSITIES

CORRESPONDENCE COURSE IN EVALUATION METHODOLOGY & EXAMINATIONS

Applications are invited from college/university teachers for admission to Correspondence Courses in Evaluation Methodology and Examinations at Basic Level, Intermediate Level and Advanced Level/Special Professional Course. The duration of each of the three courses is six months. A personal 'Contact Programme' for three days is planned for each of the three courses. Universities Institutions sponsoring candidates can meet the registration/course fees from out of unassigned grants by UGC.

Request for prospectus and application form accompanied by a crossed Indian Postal Order for Rs. 10/- drawn in favour of the Secretary, Association of Indian Universities and a self addressed stamped envelope (Rs. 2/-) should reach the Director (Research), Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi 110002. Last date for receipt of applications is **15th September** for non-sponsored and **26th September, 1988** for sponsored candidates.

Chancellor, PAU said that non-conventional sources should be harnessed for generating energy for use at homes and farms since the traditional sources of energy like wood, coal and fossil fuels were gradually exhausting. He appreciated the work done at the School of Energy in developing gasifiers. He pointed out that the technology was at present in infant stage and therefore, needed field testing at different locations. He also pointed out the importance of feedback information.

Earlier, Professor A.P. Bhatnagar, Director of the School, while welcoming the guests, said that the School of Energy had made a notable contribution in the availability and characterization of biomass in the Punjab State and the handling systems of biomass for power generation. He told that the range of gasifiers working on biomass of capacity 5, 10, 20, 40 and 60 KW have been designed and developed by the School of Energy and nine such gasifiers were at present in use in the Punjab State. These gasifiers had found wide application in pumping irrigation water, generating electricity and could be used as mobile power source for tractors and vehicles. The use of gasifiers combined with rural forestry programmes and judicious use of crop residues could bring lot of saving in the diesel fuel and valuable foreign exchange in the country, he added.

Forestry Varsity for Andhra Urged

The Andhra Pradesh Forest Minister, Mr. G. Muddu Krishnama Naidu, pleaded for setting up of a University of Forestry and Dryland Horticulture at Tirupati to serve the needs of the southern States. He was participating in the national seminar on Dryland Horticulture at the Central Research Institute for Dryland and Agriculture (CRIDA), Hyderabad. He said Tirupati and Hyderabad offered ideal conditions for locating dryland nurseries and urged the ICAR to start them with atleast one crore seedlings capacity.

The Forest Minister advocated a strategy of integrating farming in arid and drylands with forestry and horticulture so that farmers in such areas survive and prosper even without sufficient water. He said a realistic view of the potentialities and shortcoming of dryland horticulture should be taken, as confining oneself to only one or two aspects of dryland horticulture has not served our objectives. There is a need to gear up the research and extension package to the problems of the grower as well as to the processor in a time bound programme, he said.

Inaugurating the seminar the Agriculture Minister, Mr. Vasantha Nageshwara Rao, regretted that there was no Centre in the country to demonstrate free farming technology. This, he said, was essential for economic development of dryland and wasteland in the country. He said that in the last few years about 10,000 hectares had been brought under dryland and horticulture in the State. Out of about 28 million hectares cultivable land 9 million hectares constituted degraded forest land or wastelands and this can be used for developing a strong agro-based industry in rural areas, he said.

Dr. N.S. Randhawa, Director General, ICAR and Secretary (DARE), Government of India, said that the area under cultivation had increased from 124 to 130 million hectares. Of this 31 million hectares is partially conducive for farming, 30 m. hectares was under assured rainfall 30 m hectares under moderate rainfall, and another 30 million hectares in less dependable areas.

Dr. K.L. Chadha, Deputy Director General (Horticulture), ICAR, in his keynote address said large areas were still unexploited for dryland farming. There was a need to create awareness among farmers on the economics and the viability of dryland farming. He said that Govt. was considering a proposal for setting up a National Research Centre for Arid Horticulture.

Crop Research Centres

The Indian Council for Agricultural Research (ICAR) plans to set up a series of crop oriented research centres to give a boost to horticultural crops in the country. According to Dr. N.S. Randhawa, Director General, ICAR, Research centres will be set up for crops such as banana, onion, garlic and medicinal plants. Work had already begun on four such centres in Maharashtra (citrus), Himachal Pradesh (mushroom), Kerala (spices) and Karnataka (cashew).

Dr. Randhawa said research on horticultural crops had been going at various research institutes of the ICAR. But the new centres will be oriented for one crop each only. These centres will emerge centres of excellence for these crops.

We Congratulate ..

1. **Dr. (Mrs) Lalitha Kameswaran who has been appointed Vice-Chancellor of the Dr. MGR Medical University, Madras.**
2. **Dr. D. Swaminathan who has been appointed Vice-Chancellor of the Jawaharlal Nehru Technological University, Hyderabad.**

AIU Library

Established in 1965, the AIU Library has acquired over the years a valuable collection of books and documents on Higher Education. Among the topics prominently represented are Educational Sociology, Educational Planning, Educational Administration, Teaching & Teachers' Training, Examinations, Economics of Education and Country Studies. Developing fields of Adult Education, Continuing Education and Distance Education, and Educational Technology are also well stocked. The Library is particularly strong in its collection of reports whether they are on the setting up of different universities or on the state of Higher Education. Files of Annual Reports of different universities are also maintained. Readers are kept informed of the latest acquisitions through our column 'Additions to AIU Library'

The Library also receives about a 100 periodical titles on Higher Education All these are indexed regularly and a select list appears every month as 'Current Documentation in Education'

Doctoral Degrees awarded during the preceding month are reported as 'Theses of the Month', while registrations made for such degrees are flashed as 'Research in Progress' Bibliographies are also compiled and supplied on demand

Research Scholars and students of education are welcome to use these resources The Library is open from 9 00 a m to 5 30 p m Monday through Friday Access can also be had through inter library loan for which requisition must be made through your Librarian

RESEARCH IN PROGRESS

A List of Research Scholars Registered for Doctoral Degrees of Indian Universities

SOCIAL SCIENCES

Journalism

1. Thomas, M.V. *Popularity determinants of Malayalam magazines.* Kerala. Dr. M. Thangadorai, Reader, Department of Communication and Journalism, University of Kerala, Kariavattom.

Psychology

1. Paul, Mini K. *Effects of separation from parents on the development of personality and adjustment of adolescent boys and girls in Kerala.* Kerala. Dr. (Mrs.) Rita Krishnan, Lecturer, Department of Psychology, College for Women, Trivandrum.

Sociology

1. Gopinathan Pillai, P. *Role of left movement in agrarian relations in Kerala.* Kerala. Dr. G. Ramachandra Raj, Prof., Department of Sociology, University of Kerala, Kariavattom.

2. Mumtaz Begum, A. *Impact of ICDS on child rearing particles : A sociological study.* Kerala. Dr. Jacob John Kattakkayam, Lecturer, Department of Sociology, University of Kerala, Kariavattom.

3. Reghu Ram Das, J.R. *Social status of tribal women in Kerala.* Kerala. Dr. M. Indukumari, Lecturer, Department of Sociology, University of Kerala, Kariavattom.

4. Roy, M. Sam. *The relevance of decentralising power and planning in poverty alleviations.* Kerala. Dr. Jacob John Kattakkayam, Lecturer, Department of Sociology, University of Kerala, Kariavattom.

5. Swami, Meenaxi. *Muslim mahilaon kee badalti huvee sthiti : Bhopal, Indore kee mahilaon ka tulnatmak adhyayan.* Devi Ahilya. Dr. K. Rajwade, Prof., Department of Sociology, Government College, Dhar.

6. Tiwari, Damayanti. *Indore mein paramparagat Hindu parivarik vyavastha per nagarikaran ka prabhav.* Devi Ahilya. Dr. T.R. Seth, Asstt. Prof., Department of Sociology, P.M B. Gujarati Arts and Law College, Indore.

Political Science

1. Tiwari, Rashmi. *Bharatiya samajvadi chintan mein Acharya Narendra Dev ka sthan : Ek mulyankan* HS Gour. Dr. (Smt) Shobha Shankar.

2. Tiwari, Surendra Kumar. *Bharatiya rajniti mein kshetriya pravrittiyan : Ek vishleshnatmak adhyayan.* HS Gour. Prof. R.C. Dubey, Reader, Department of Political Science, Dr. Harisingh Gour Vishwavidyalaya, Sagar.

Economics

1. Bhawdeep Singh. *An analysis of the socio-economic concomitants of social forestry in Punjab : A study of District Bathinda.* Punjabi. Dr. G.S. Bhatnagar, Prof. and Head, Department of Sociology, Punjabi University, Patiala and Dr. A.S. Bhatia, Reader, Department of Economics, Punjabi University, Patiala.

2. Choudhury, Toufic Ahmed. *An evaluation of the performance of commercial banks of Bangladesh.* HP. Dr. J.P.

Bhati, Department of Economics, Himachal Pradesh University, Shimla.

3. Karam Chand. *Levels of living and inequalities in the tribal economy of District Kinnaur, H.P.* HP. Dr. Dalip S. Thakur, Department of Economics, Himachal Pradesh University, Shimla.

4. Mishra, Archna. *Madhya Pradesh mein chamra vastu nirman udyog ka arthik adhyayan : Sagar Nagar ke vishesh sandarbh mein.* HS. Gour. Dr. S.K. Pandey.

5. Paraham Ahad Ali. *Iran's monetary system : A study of working of Central Bank of Iran since 1975.* Shivaji. Dr. V. B. Ghuge. Head. Department of Economics, Shivaji University, Kolhapur.

6. Rathi, Vanita. *Taxation of agriculture in Himachal Pradesh.* HP. Dr. N K Sharda, Department of Economics, Himachal Pradesh University, Shimla.

7. Satish Kumar. *Nature and extent of unemployment in Kinnaur District of Himachal Pradesh.* HP. Dr. Dalip S. Thakur, Department of Economics, Himachal Pradesh University, Shimla.

8. Sharma, Navita. *Pattern of net income from crop farming under technical change.* HP Dr. L.R. Sharma, Department of Economics, Himachal Pradesh University, Shimla.

Public Administration

1. Pathak, Mahesh Chander. *A study of organisation, functioning and development of dairy industry in India.* HS Gour. Dr. S B Srivastava.

Commerce

1. Kaistha, Sunita. *Export promotion in India with special reference to the role of exim.* HP. Dr. Maneet Kumar. Department of Commerce and Business Administration, Himachal Pradesh University, Shimla.

2. Madhu. *Evaluation of commercial banks performance relating to Districts credit plan.* HP. Dr. Rajinder Sharma, Department of Commerce and Business Administration, Himachal Pradesh University, Shimla.

3. Mane, Balkrishna Shamrao *Role of Indian Banks' Association (IBA) in the development of India's banking industry.* Shivaji. Dr R.R. Doshi, Department of Economics. Shivaji University, Kolhapur.

Home Science

1. Coll, Parveen. *An integrated approach to the energy management in rural kitchens.* Delhi. Dr. S. Malhan and Dr. S. Kumar, Department of Home Science. University of Delhi, Delhi.

2. Narula, Vinita. *A program to assess the incidence, the level of knowledge and the adoption of recommended practice for the control of goitre among the adolescent girls in and around Delhi.* Delhi. Dr. M. Seth, Lady Irwin College, Delhi and Dr. K.G. Krishna Murty, Department of Home Science. University of Delhi, Delhi.

HUMANITIES

Philosophy

1. Upadhyay, Bindu. *Pramukh upanishadon ka niti darshan.* Devi Ahilya. Dr. R.N. Vyas, Prof. and Head, Department of Philosophy and Psychology, Govt. Girls' P.G. College, Indore.

Religion

1. Rahiman, H. Abdul. *Vakkom Moulavi and the renaissance movement among the muslims.* Kerala. Dr. C. K. Kaream, Coonanthal, Edapally, P.O. Cochin.

Language & Literature

English

1. Goswami, L.K. *Black autobiographical writings and dalit autobiographical writings in Marathi: A study in contrast.* Shivaji. Dr. V.V. Badve, Department of English, Shivaji University, Kolhapur.

Russian

1. Menon, Parvathy Venugopalan. *Comparative study based on themes and styles of post revolutionary literature in the U S.S.R and post independent Malayalam literature.* Kerala. Dr. K. Govindan Nair, Prof. and Head, Department of Russian, University of Kerala, Trivandrum.

Hindi

1. Chowksey, Usha. *Shri Harikrishan Premi : Vyaktitva evam krititva ka punra mulvankan, Gyat agyat sandarbhon ke paripreksya mein.* Devi Ahilya. Dr. S.S. Vyas, Prof. (Retd.), Govt. Arts and Commerce College, Indore.

2. Gupta, Beena. *Bhaktikaleen kavya mein nari kee sthiti.* Banasthali. Dr. Jagdish Prasad Sharma, Prof. and Head, Department of Hindi, Banasthali Vidyapith, Rajasthan

3. Salodia, Vijay Laxmi. *Balkrishna Sharma Naveen ke kavya : Bhavbodha ke ayam.* Banasthali. Dr. Lal Chand Jain, Lecturer, Department of Hindi, Banasthali Vidyapith, Rajasthan.

History

1. Lageena, A. *The Dutch East India Company and the Kerala Kingdoms, 1663-1795.* Kerala. Dr. A.P. Ibrahim Kunju.

2. Nair, Latha G. *British residents in Travancore.* Kerala. Dr. A. Gopalakrishnan.

3. Panicker, Raj. *Spiritualism in Kerala culture, 1956-1986.* Kerala. Dr A. Gopalakrishnan.

4. Reetha, S. Prabha. *History of Jenmi, Kudiyan system in Travancore from 1850 to 1950.* Kerala. Dr. N. Sasidharan Nair.

5. Sarojini, P. *Political agitation in Travancore from 1891 to 1938.* Kerala. Dr. G. Krishnan Nadar.

6. Sivankutty, D. *British relations with Travancore, 1840-1860.* Kerala. Dr. G. Krishnan Nadar.

7. Umadevi, K.G. *The evolution of legislature in Travancore, 1888-1947.* Kerala. Dr. N Sasidharan Nair.

8. Vijayakumaran Nair, K *History of crime and punishment in Travancore.* Kerala. Dr. A. Gopalakrishnan, T.C. 9/1597, Sasthamangalam, Trivandrum.

THESES OF THE MONTH

A List of Doctoral Theses accepted by Indian Universities.

SOCIAL SCIENCES

Psychology

1. Happali, Arunkumar Basavanneppa. *A study of organizational identification and work identification in relation with personal factors.* Karnatak. Prof. K.R. Mallappa, Department of Studies in Psychology, Karnatak University, Dharwad.

2. Hooja, Raj Vir Singh. *Face identifications as function of personality, target disguise and time delay.* Meerut. Dr. S.N. Rai, Reader, Department of Psychology, Meerut University, Meerut.

3. Mehrotra, Prabodh. *Personality dimensions, mental health and self-concept of rural adolescents belonging to different caste groups : A comparative study.* BHU. Dr. M. S.L. Saxena, Prof and Head, Department of Psychology, Banaras Hindu University, Varanasi.

4. Pal, Anita. *A study of competition and cooperation in high school children as related to personality and parental orientation.* Panjab.

5. Prem Kumar. *A study of the personality correlates of demand aware and unaware subjects in a verbal conditioning task.* Meerut. Dr. B S. Gupta, Department of Psychology, Banaras Hindu University, Varanasi.

6. Sharma, Kushal. *Handedness congnitive abilities, personality and hemisphericity.* Meerut. Dr S.C. Sharma, Department of Psychology, Meerut College, Meerut and Prof. M.K. Raina, Department of Education, National Council of Educational Research and Training, New Delhi.

7. Sharma, Tripta. *Recognition for words as a function of semantic and orthographic orienting task and individual differences in trait anxiety.* Meerut. Dr. B.S. Gupta, Department of Psychology, Banaras Hindu University, Varanasi.

8. Singh, Rana Pratap. *Role conflict and role ambiguity as moderators of the relationship between supervisory orientation and organizational effectiveness.* BHU. Dr. A.P. Singh, Reader, Department of Psychology, Banaras Hindu University, Varanasi.

9. Singh, Vinod Kumar. *Personality make-up and parental effectivity as correlates of national social integration.* Meerut. Dr. N.S Chauhan, Prof. and Head, Department of Psychology, Meerut University, Meerut.

Sociology

1. Jain, Manju Kumari. *Karyasheel mahilaon ke rajnitik drishtikon . Samajik parivartan ke sandarbh mein adhyayan.* Rajasthan. Dr. D.B. Mathur, Director, Centre for Gandhian Studies, University of Rajasthan, Jaipur.

2. Lallan Singh. *Gramin nirdhanata evam samanvit gramin vikas karyakram : Bihar Rajya ke Rohtas Jile ke Kudara Block per adharit ek samajvaigyanik adhyayan.* BHU. Dr. (Miss) Asha Mehrotra.

3. Mohana Rao, K. *Continuity and change in cultural patterns of Kolan Tribe.* Osmania.

4. Munni. *Nari prajanan abhiprenana ka samajvaigyanik adhyayan.* BHU. Dr. P.V. Tiwari.

5. Rai, Rama Shanker. *Adhunikikaran, Hindu Muslim paramparayen evam antah dharmik parasparikata : Varanasi ke Hindu, Muslim samudayon per adharit ek samajshastriya adhyayan.* BHU. Dr. P.N. Pandey.

6. Singh, Anil Kumar. *Gramin samajik sanrachana, log, bhumi aur arthatantra : Mirzapur Janpad ke Jamalpur Vikas Khand per adharit ek samajvaigyanik adhyayan.* BHU. Dr. Muhammad Salim.

7. Singh, Chandra Pal. *Janjatiya samudaya evam audyogikaran : Mirzapur Janpad kee janjatiyon per Dala Cement Factory ke prabhavon ka samajvaigyanik adhyayan.* BHU. Prof. S. Tripathi, Reader, Department of Sociology, Banaras Hindu University, Varanasi

8. Vishwakarma, Ramashankar. *Gram Didhvat, Jile Banda ke gramin gutvad ka samajshastriya adhyayan.* Bundelkhand. Dr. V.N. Seth, Principal, Christ Church College, Kanpur.

9. Yadava, Hari Bansh. *Ek anusuchit jati ka samajik jeevan Azamgarh Janpad per adharit anusuchit jatiyon mein gramin Pasi Jati ka samaj vaigyanik adhyayan.* BHU. Prof. S.K Srivastava, Head, Department of Sociology, Banaras Hindu University, Varanasi.

Social Anthropology

1. Nataraj. *Sin and crime among the Iranis.* Karnatak. Dr. M.K. Kadetotad, Reader, Department of Studies in Anthropology, Karnatak University, Dharwad.

2. Padmavathi, Dama. *Caste and occupational change study of a bangle-making caste.* Andhra.

3. Ray, Biswanath. *Socio-economic gradients in demographic variabls : A study on the Muslims of West Bengal.* Calcutta.

4. Sonowal, Minarva. *Studies on the Flake and Blade industries of the Garo Hills, Meghalaya.* Gauhati. Dr. T.C. Sharma, Head, Department of Anthropology, Gauhati University, Guwahati.

Social Work

1. Amar Nath Singh. *Child labour in carpet weaving.* Kurukshetra.

2. Devi Prasad, Bammidi. *Dowry practice in the urban setting : A causal study.* Andhra.

Political Science

1. **Awasthi, Rashmi.** *1967 ke pashchat sangh-rajya sambandhon ke badalate swarup ka vishleshanatmak adhyayan : Madhya Pradesh ke vishesh sandarbh mein.* HS Gour. Dr. R.C. Dube, Head, Department of Political Science and Public Administration, Dr. Hari Singh Gour Vishwavidyalaya, Sagar.

2. **Chakravarti, Milan Kumar.** *Charismatic authority in India from Gandhi to the present day.* Rabindra Bharati.

3. **Deb, P.K.** *Integrated tribal development project : A study of its socio-political and administrative implications, with special reference to Kuchinda Subdivision.* Sambalpur. Dr. A.P. Padi, Prof., Department of Political Science and Public Administration, Sambalpur University, Jyoti Vihar, Burla and Dr. S.L. Srivastava, Prof., Department of Sociology, Ravishankar University, Raipur.

4. **Muthukrishnan S.** *The President's rule under article 356 of the Constitution with reference to Kerala : A critical study.* Madurai.

5. **Shahi, Ajit Kumar.** *A study of the critique of Nehru's Socialism, 1946-1964.* Bihar. Dr. R. Pandey, Prof., Department of Political Science, Bihar University, Muzaffarpur

6. **Sinha, Ranjit.** *Rural leadership, panchayat raj and rural development* NBU.

7. **Suran Naidu, Dharmana.** *Congress party building in Srikakulam District, Andhra Pradesh.* Andhra.

8. **Thapa, Ganga Bahadur.** *Peasant Movement with special reference to agrarian reform in Nepal, 1950-70.* BHU. Prof. P.D Kaushik, Reader, Department of Political Science, Banaras Hindu University, Varanasi.

Economics

1. **Agarwal, Puran Chand.** *Perspective of oilseeds in India 2001 AD : An analysis of demand and supply of oilseeds and the factors affecting growth of oilseeds in India.* Meerut. Dr. B.S. Sarin, Department of Economics, M.M. College, Modinagar and Dr. Padam Singh, Joint Advisor, Perspective Planning Commission, New Delhi.

2. **Chaubey, Awadhesh Kumar.** *A study of lab to land programme of Varanasi, U P.* BHU. Dr. B D. Pandey, Prof, and Head, Department of Extension Education, Banaras Hindu University, Varanasi.

3. **Dash, Satyanarayan.** *Role of working of handloom industry in Western Orissa.* Sambalpur. Dr. R.S. Rao, Reader, Department of Economics, Sambalpur University, Jyoti Vihar, Burla.

4. **Dharmatma Nand.** *Uttar Pradesh sarkar ke vitt ka ek adhyayan.* BHU. Prof. U K. Mehra.

5. **Guleria, Amar Singh.** *An analysis of output and consumption of trade in wood products in India* HP.

6. **Jai Bir Singh.** *Input-output relationship in Haryana agriculture : A sample study of selected villages.* Kurukshetra.

7. **Jain, P.M.** *Agricultural production and productivity in Jalgaon District.* Vikram. Dr. A.K. Bhattacharya, Department of Economics, Vikram University, Ujjain.

8. **Karjagaonkar, Alka.** *Jansankhya vridhi par shiksha ka prabhav, Ujjain Jile ke sandarbh mein.* Vikram. Dr. (Mrs) S. Murty, Department of Economics, Vikram University, Ujjain.

9. **Nadkarni, Shivani.** *Economics of chemical industry in Madhya Pradesh.* Devi Ahilya.

10. **Pandey, Sheonandan.** *Comparative agricultural development in India and China since FFYP.* Meerut. Dr. R.P. Tyagi, Department of Economics, M.M.H. College, Ghaziabad.

11. **Sontakki, C.N.** *The problems of cottage powerloom industry in Belgaum District.* Bombay. Dr. B.R. Rairikar, Principal, (Retd.), Lala Lajpatrai College of Commerce, Bombay.

12. **Swarn Lata.** *A study of dynamics of interrelationships of crop and dairy enterprises in agrarian sector in Haryana State.* Kurukshetra.

Law

1. **Gupta, Raj Kumar.** *Fiscal imbalance between the centre and the states under the Indian Constitution.* Kurukshetra.

2. **Nakade, Shivraj Bashettiappa.** *National emergency under the Indian Constitution.* Marathwada. Prof. J.K. Mittal, Research Prof. Indian Law Institute, Bhagwandas, Road, New Delhi.

Public Administration

1. **Khare, Brij Bhushan Lal.** *Human resource development in civil services : A study of IAS.* Panjab.

Military Studies

1. **Singh, Janak Singh.** *Yudh mein Bharatiya shasakt senaon ka yogdan* Bundelkhand. Dr. O.P. Singh, Head, Department of Military Studies, Attara College, Attara.

Education

1. **Agarwal, Neeraj Mohini.** *Role of sex in dynamics of class room teaching behaviour flow patterns.* Meerut. Dr. R.A. Sharma, Prof. and Dean, Department of Education, Meerut University, Meerut.

2. **Bahuguna, Ramesh Chandra.** *A comparative study of correspondence and formal education.* Meerut. Dr. R. N. Agarwal, Department of Education, Meerut College, Meerut.

3. **Bhardwaj, Ram Prakash.** *Standardization of a comprehensive diagnostic test and preparation of remedial material in Mathematics for middle standard students of Haryana.* Kurukshetra.

4. **Bhatt, P.N.** *A comparative study of the effectiveness of three different modes of teaching selected topics of science on the achievement of the students.* Saurashtra. Dr. S.J. Bhavsar.

5. **Harihar Singh.** *Effective teaching strategies used for preparing examinations as perceived by the students.* Meerut. Dr. R.A. Sharma, Prof. and Head, Department of Education, Meerut University, Meerut.

6. **Joshi, Anuradha.** *Evolvement of an instructional strategy for teaching elements of science to class IX students of M.P. State.* Devi Ahilya.

7. **Rajender Singh.** *Adult education, training and productivity : A study of workers in Haryana.* Kurukshetra.

8. **Rashmi.** *To study the relative effectiveness of taped programme and guided discovery methods of teaching Mathematics in elementary classes* Meerut. Prof. O.S. Dewal, Prof. and Head, Department of Education, Central Institute of Educational Training, New Delhi and Dr. R.N. Aggarwal, Department of Education, Meerut College, Meerut.

9. Vyas, S.G. *Construction and standardisation of the Hindi language ability test for the entrants to the standard eleven (general stream) of higher secondary schools of Saurashtra Region.* Bhavnagar. Dr. M D. Trivedi.

Commerce

1. Agarwal, Vinod Kumar. *Analysis of financial statements of sugar mill companies in Meerut Division since 1971.* Meerut. Dr. R.C. Mittal, Principal (Retd), Meerut College, Meerut.

2. Fulzele, Rajendra Sitaramji. *A study of the economic condition of scheduled castes engaged in trade and commerce within the Nagpur Corporation Area during the period 1961 to 1981, with special reference to Mahar and New Buddhist* Nagpur. Dr. V.S. Shenwai, S.P. City College, Nagpur.

3. Garg, Ram Kumar. *Impact of State Financial Corporations on the growth of small scale industries in India : A case study of Haryana Financial Corporation, 1967 to 1983.* Meerut. Dr. R.K. Jain, Head, Department of Commerce, J.V. Jain College, Saharanpur.

4. Jain, Mukesh Chand. *Problems and prospects of forest based industries in Uttar Pradesh : Case studies of WIMCO and the Indian Turpentine and Rosin, Co. Ltd., Bareilly.* Meerut. Dr. Nanak Chand, Department of Commerce, M.M. College, Modinagar.

5. Khandelwal, R.S. *Analysis of capital structure in paper industry of India.* Saurashtra. Dr. N.M. Khandelwal.

6. Misra, Banarasi. *Monitoring of industrial sickness of corporate enterprises in India.* BHU. Dr. R. M. Pandey, Reader, Department of Commerce, Banaras Hindu University, Varanasi.

7. Mittal, Jitendra Kumar. *Analysis of financial statements of cement industry in India.* Meerut. Dr. K.K Sharma, Ex-Principal, Meerut College, Meerut.

8. Ray, Pinakiranjan. *Cattle depreciation conceptual propriety and treatment in farm accounting.* Calcutta.

9. Sharma, Bhuvnesh Chandra. *Material management in Jammu and Kashmir Road Transport Corporation.* Jammu. Dr. N.S. Gupta, Prof. and Head, Department of Commerce, University of Jammu, Jammu and Dr. L.C. Khullar, Reader, Department of Commerce, University of Jammu, Jammu.

10. Sharma, Narayan. *Analysis of the problems of lapse in the Life Insurance Corporation of India.* BHU. Dr. M.N. Mishra, Reader, Department of Commerce, Banaras Hindu University, Varanasi.

11. Singh, Kapil Dev. *Working capital management in public enterprises in India : A case study.* BHU. Dr. K.M. Pandey, Reader, Department of Commerce, Banaras Hindu University, Varanasi.

12. Singhal, Jagdish Prasad. *Role of State Bank of India in agricultural finance.* Meerut. Dr. J.D. Jain, Department of Commerce, J.V. Jain College, Saharanpur.

13. Subey Singh. *A critical study of the working of Primary Co-operative Credit societies in Haryana.* Meerut. Dr. M.L. Agarwal, Department of Commerce, D.N. College, Meerut.

14. Tare, Asha. *Credit policy of the commercial banks in India.* BHU. Prof. R.A. Singh, Head, Department of Commerce, Banaras Hindu University, Varanasi.

15. Upadhyay, Shailendra Kr. *Recent trends in India's export trade.* BHU. Dr. B. Jha.

16. Yadava, D.R. *Marketing and price spread of food grains in Meerut Region with special reference to wheat, maize and paddy.* Meerut. Dr. M.L. Agarwal, Department of Commerce, D.N. College, Meerut.

Home Science

1. Nighat Ara. *Immunization status of children in Varanasi and Srinagar : Innovation of some simple education material for the improvement of the immunization status of children in both the study areas.* BHU. Prof. (Mrs) A. Shukla, Head, Department of Home Science, Banaras Hindu University, Varanasi.

2. Saraf, Neela Prafulla. *Comparative study of unemployed and employed home makers of rural and urban areas with regard to paid help (in home making).* Nagpur. Dr. (Mrs) Kshama Limaye, Department of Home Science, S.B. Mahila Mahavidyalaya, Nagpur.

Business Management

1. Harish Kumar. *Management information system : A case study of O.N.G.C.* Rajasthan. Dr. R.B. Upadhyaya, Vice-Chancellor, Ajmer University, Ajmer.

Gurukula Kangri Vishwavidyalaya, Hardwar

(DEEMED UNIVERSITY)

UGC JUNIOR RESEARCH FELLOWSHIP 1988-99

NOTIFICATION

Applications on prescribed form are invited for the award of Junior Research Fellowship in Humanities and Science of Rs. 1800/- p.m. for the first and second years and Rs. 2100/- p m. for subsequent years with a contingency grant of Rs. 5000/- per annum from those candidates who have qualified in the National Educational Test conducted by University Grants Commission or Jointly by U.G.C. and CSIR for registration in Ph.D. in the following subjects :—

1. Vedic Literature 2. Sanskrit Literature 3. Hindi Literature 4. Ancient Indian History, Culture and Archaeology 5. Philosophy 6. Psychology 7. English Literature 8. Mathematics 9. Botany 10. Zoology.

The J.R.F. so awarded are tenable only at this Vishwavidyalaya and the awardee under the scheme is required to do full time research work under the guide approved in the department concerned of this Vishwavidyalaya. The terms and conditions of the award will be as per U.G.C. rules.

Applications completed in all respects should reach the undersigned on or before 31st August, 1988. The prescribed application form and booklet of Ph.D. rules may be obtained personally on payment of Rs. 10/- or by sending M.O./Crossed Bank Draft for Rs. 15/- payable to the Registrar Gurukula Kangri Vishwavidyalaya, Hardwar.

Female candidates need not apply for registration to Ph.D. in Botany and Zoology.

Dr. Virendra Arora
REGISTRAR

Ministry of Human Resource Development
Department of Education

Applications are invited in the prescribed format from Indian nationals for the award of Commonwealth Scholarships tenable from October, 1989 for higher studies/research/training in the subjects mentioned below in the United Kingdom (72 nominations), Canada (24 nominations), Hong Kong (3 nominations), Nigeria (2 nominations) and Trinidad & Tobago (1 nomination).

Value: Scholarships cover tourist-class air-passage (both ways) adequate maintenance and other allowances.

Age: Candidates should be below 34 years of age as on 1.10 1988. Preference will, however, be given to candidates who are below the age of 30 years. The upper age limit is, however, relaxable by two years in the cases of SC/ST candidates. (For all the countries).

(A) Medicine (for U K. only): Cancer Research (including Cancer Epidemiology); Cardiology; Gynaecology and Neurosurgery.

(B) *Engineering & Technology:* *Computer Studies* including Information Technology, Word Processing, Data Processing and Micro-Electronics Applications; Electronics; Environmental Science and Engineering; Ocean Engineering. Paper Technology; Remote Sensing Technology, Communication Engineering including Satellite Communication, Optical Fibre Communication and Digital Communication; Bio-Technology (Genetic Engg/Genetic Manipulation); Instrumentation Process Controls related to Petro-chemicals including Micro-Processor Technology; Robotics-very large scale integration Artificial Intelligence and Quality/Reliability Engineering.

(C) Science (Pure and Applied): Biochemistry: Computer Science, Mathematics: Molecular Biology: Microbiology and Physics (Solid State/Plasma).

(D) Agriculture and Allied Fields: Animal Husbandry; Agronomy: Food Technoloy; Forest Economics and Horticulture.

(E) Humanities & Social Sciences: Anthropology (Physical/Social); Archaeology: Economics; Education/Pedagogy; English Language & Literature; Fire Arts (includes Western Painting, Art History, Graphic Design and Sculpture): History; Library Science; Museology; Philosophy; Scientific Conservation; Sociology; *Political Science, *Mass Communication (*only for Canada); and Psychology.

Minimum Qualifications and Experience required :

Medicine: MD/MS MDS in the subject field selected should have atleast 60% marks at either Bachelor's or Master's degree level with two years continuous experience thereafter as on 1.10.1988. Scholarships are only for specified training in higher techniques and methodology that are project-oriented. These are not for generalised training or for studies/training leading to degree or diploma.

(B) Engineering and Technology : First class Master's degree in Engineering/Technology in the subject field selected or a related field with two years continuous experience thereafter as on 1.10.1988, excepting Paper Technology. Candidates who have been Science students and wish to apply under this group, must also have Master's degree in Engineering/Technology with two years continuous experience.

Exceptions to the qualifications: PAPER TECHNOLOGY: Master's degree in Engineering/Master's degree in Chemistry/Bachelor of Engineering (Pulp & Paper)/University Diploma in Pulp & Paper with two years/4 years 3½ years and 5 years experience respectively in the related field.

(C) Science (Pure & Applied): First class Master's degree in the subject field selected or in a related field with two years continuous experience thereafter as on 1.10.1988.

(D) Agriculture & Allied Fields: First class Master's degree in the subject field selected or in a related field with continuous two years experience thereafter as on 1.10.1988.

(E) Humanities & Social Sciences: First class Master's degree in the subject field selected or in a related field with two years continuous experience thereafter as on 1.10.1988 with the exception of subjects mentioned below:

Exceptions to the qualifications : (a) ARCHAEOLOGY: The degree should be in Ancient/Medieval History/Archaeology. (b) HISTORY (NON-INDIAN): Specialization in European History is essential preferably with knowledge of a major European language other than English. (c) MUSEOLOGY: Master's degree with a Diploma in Museology or should have worked in any Museum in a Curatorial Assignment. (d) SCIENTIFIC CONSERVATION: Master's degree in Chemistry/Bachelor's degree in Civil Engineering with Chemical/Structural/Preservation as field of specialisation. (e) FINE ARTS: 5 years National Diploma in Fine Arts from a recognised Institution/University Preference, however, will be given to the candidates possessing Master's degree in Fine Arts/History of Art. Five black and white/coloured slides may be attached with the application.

HONG KONG (3)

Subject-Fields: Chinese Language, Chinese History (Knowledge of Chinese language is essential).

Minimum Qualifications and Experience required: Master's degree in the subject selected with continuous two years experience thereafter as on 1.10.1988.

NIGERIA (2)

Subject-Fields: Forest Economics.

Minimum Qualifications and Experience required: First class Master's degree in the subject field or related field with continuous two years experience thereafter as on 1.10.1988.

TRINIDAD & TOBAGO(1):

Subject-Field: Tropical Agriculture (including Horticulture).

Minimum Qualifications and Experience required: First class Master's degree in the subject field with two years experience thereafter as on 1.10.1988.

Other Essential Qualifications: 1. The experience specified would be calculated from the date of acquiring the minimum qualifications. 2. Preference would be given to candidates who already hold a job and are sponsored with the assurance from their employers that they would be absorbed on their return from abroad. 3. No objection certificate from the Employer has to accompany the application from employed candidates.

Last date for the submission of applications : *Applications on plain paper in the prescribed format along-*with the required documents (Photo, IPO and attested copy of the certificates/degrees/diplomas) should reach **the E.S. 4 Section, Room No. 517 'B' Wing, Shastri Bhavan, New Delhi-110001 latest by 26th August, 1988.**

Important Instructions: ●There is keen competition for these scholarships which are also not awarded subject-wise. Candidate should submit only one application against the subject of his choice. ● Candidates, who have already appeared for interview thrice under the scheme, are not eligible to apply. ●Interview letters in a particular subject are sent only to the best candidates in order of merit after their applications are judged by a duly constituted Selection Committee of Experts. ● The country against which the candidate wishes to be considered should be indicated clearly on the top of the application. However, the selected candidates may be nominated for another country according to administrative convenience. ● Application must be accompanied by attested copies of certificate of age, mark-sheets of the qualifying examination and all the Degrees/Diplomas/Certificates. ● Candidates already holding Ph.D. Degree may be considered for UK only in very exceptional cases for Post-Doctoral Research. ● Equivalent foreign Degrees and Diplomas are acceptable. ● Candidates who have already been abroad for Studies/training/specialization either on scholarship or on their own, are eligible to apply only if they have been in India for at least 3 consecutive years after returning from abroad. ● Candidates who are at present abroad are not eligible to apply. ● In case of candidates qualifying from Universities/Institutions which do not give class or Division, requirements in lieu of 1st class would be 60% marks. Where grades are awarded, the candidates are required to furnish exact percentage of marks and indicate the conversion formula. ● In case the IPO is enclosed with the Advance Copy, it is not necessary to enclose the same again, but the applications received without IPO will be incomplete and not be considered (Postal orders issued only after the Date on which the Advertisment was Published in the News Papers will be Accepted). ● Candidates should have adequate knowledge of geographical situation, culture and heritage of India and donor country. ● Only candidates who are having throughout good academic record should apply. ● Passport size photograph indicating the name of the candidate in ink in capital letters be pasted at the appropriate place on the application form. Without photograph application will be considered incomplete. ● The application sent through Employer will be accepted within 15 days from the last date prescribed for the receipt of applications. ● Sponsored candidates, who are finally selected, would have to produce a letter from their Employers that they would grant sufficient leave to cover the programme of study/training (normally two years required for Master's degree and 3 years for Ph.D. and 5 years for both Master's degree plus Ph.D. maximum). ● Candidates belonging to All India Services, like Indian Forest Service should send their applications through their Cadre Controlling Ministry. No action will be taken on the advance copies received from them direct. ● Canvassing in any form will be a disqualification. ● In case no interview letter is received by a candidate by the 31st December, 1988, it may be presumed that he/she has not been found fit for being called for interview. No further correspondence in this regard will be entertained.

Note : (Before filling up the application, candidates are advised to go through the instructions carefully).

PROFORMA FOR APPLICATION

1. Name of the Scholarship Scheme : Commonwealth Scholarship/Fellowship Plan Offer of Scholarships from Govts. of U.K./ Canada/Trinidad & Tobago/Hong Kong/ Nigeria.
2. (a) Subject (b) Sub-subject

Recent passort size photograph duty signed in block capitals to be pasted here. Without photograhp appln. will be considered incomplete.

3. (*i*) *Name of candidate* : (in block letters), with full mailing address. *Shri/Smt./Kum.*

   (ii) Marital status :

4. Date of birth and the State to which the candidate belongs.

5. Whether a member of SC/ST or a tribal or aboriginal or aboriginal community ? If so, give full particulars (Enclose certificate duly signed by 1st Class Magistrate).

6. Academic record starting from High School/ Higher Secondary (Attested/Photostat copies of Certificates to be attached).

Name of the University Board Inst.	Examinations passed	Year of Passing	Division/ Class with Position if any.*	Percentage of marks obtained and position, if any.	Subject taken.

*(in case no division/class is awarded and only grading is done the conversion formula adopted may be mentioned.)

7. Details of Professional/Practical Training and Research Experience, specifying the period and number of papers published, previous employment with name and date of employment, if any.

8. Nature of the present employment with date of appointment, designation and the name & address of the employer.

9. Names, *designations and addresses of three* referees who are familiar with the work of the scholar.

N.B. : Candidates called for interview will have to bring with them the comments of all three referees.

10. *Have you been abroad ? If so, give full* particulars of the country and the period. Also mention the year of return to India.

11. Proposed Programme of Study/Research/training, specifying.

    (i) the work at present engaged in;

    (ii) nature and programme of study/research/ training desired;

    (iii) future plans/prospects after the proposed studies/research/training, and

    (iv) how are these related to the technical or economic development of India.

12 Crossed Postal Order of Rs. 5.00 (Rs. 1.25 in case of SC/ST candidates, etc.) payable to the Secretary, Ministry of Human Resource Development (Department of Education). New Delhi may be attached with the form.

13. Whether you have already appeared for interview under this scheme during last three years. If so, give details :

    Indicate subject & year when you appeared for interview.

1	2	3
Subject/ Year	Subject Year	Subject/ Year

Place... Date... Signature of the Candidate

NOTE : Employed persons must send their applications fully sponsored by the employers. However, advance applications if they are complete in all respects (Photo, IPO and copies of the certificates) will be considered provisionally subject to the stipulation that applications through proper channel should reach the Section Officer, E.S. 4 Section not later than 15 days after the closing date for receiving applications.

davp 88/278

Council of Scientific and Industrial Research

Senior Research Fellowship / Research Associateship

(Advertisement No. SRF RA-EMR-1 88)

Applications are invited from Indian Nationals by the Council of Scientific and Industrial Research, New Delhi for the award of CSIR Senior Research Fellowship/Research Associateship in all the subjects of Science and Technology including Engineering and Medicine tenable at Universities, Institutes of Technology, Medical Colleges/Institutes, Centres of Advanced Study, CSIR Laboratories, and other Research/ *Academic Institutions. Preference will be given to* the topics relevant to R & D programmes of CSIR Laboratories, new and emerging fields in each scientific discipline and areas of national importance of Science and Technology. Good academic record at *the University level. research papers published in* standard journals and the topic and scope of research to be undertaken will be the main criteria for selection. The fellowship/associateship will be subject to CSIR Terms and Conditions applicable from time to time.

Senior Research Fellowship in Science Subjects

(Stipend Rs. 2100/- p.m.)

Qualification : Applicants should have first class M.Sc. or equivalent degree with at least 2 years research experience after M.Sc and published accepted papers in standard journals. Those who have submitted their thesis for Ph.D may not apply for SRF.

Senior Research Fellowship in Engineering and Medicine

(Stipend Rs. 2400/- first two years and Rs. 2500/- p.m. subsequent years).

Qualification : Applicants should have M.E./M. Tech. in engineering or equivalent degree in Engineering and Technology or M.B.B.S. after completing one year internship.

Tenure : (i) The tenure of an SRF in Science subjects will be 2 years extendable by one year after assessment as per rules, provided Ph D. thesis has not been submitted. (ii) The tenure of an SRF in Engineering and Medicine will be two years extendable by a period of one year after assessment as provided in rules. If considered necessary this period can be further extended by one year after assessment.

Age : The upper age limit for Senior Research Fellowship is 32 years as on 31.8.88 (relaxable by three years for Scheduled Caste and Scheduled Tribe candidates). In exceptional cases where a candidate *is found to have outstanding ability, the age limit* may be relaxed marginally at the discertion of CSIR.

Selection will be made by high level Expert Committees in various disciplines on the basis of academic *career and published/project work of the candidate*

Those who have held or are holding Senior Research Fellowship awarded under various schemes of all India grant giving agencies such as DST, UGC, ICMR, etc may also apply but if selected they will be subject to the additional condition that their total tenure as SRF together with such tenure of fellowships held earlier shall not exceed 3 years in Science subjects and 4 years in Engineering/Medical subjects.

Research Associateship

Qualification : Applicants should have Ph.D. or equivalent degree (in a science subject) or M.D./M.S. (in Medical Sciences) or three years research, design and development experience after M.E./M.Tech. or equivalent degree in Engineering and Technology. Those who have submitted thesis for Ph.D. may apply for RA, but in the event of their selection award letter will be issued only on their producing documentary evidence of their Ph.D. degree.

Age : The upper age limit is 35 years as on 31.8.88 (relaxable by three years for Scheduled Caste and Scheduled Tribe candidates). Marginal relaxation in the period of R & D experience after M.E./M.Tech., and age relaxation upto a maximum of five years may be considered for candidates having outstanding ability, at the discretion of CSIR.

Stipend : The emolument of the Research Associates will be in one of the following four slabs and the stipend will be fixed depending on the recommendations of the Selection Committees.

Rs. 2200-100-2700
Rs. 2700-100-3200
Rs. 3200-100-3700
Rs. 3700-125-4325

Fresh Ph.D's will generally be placed in the grade of Rs 2200-100-2700. However, stipends in higher grades may be offered to outstanding cases on the basis of merit and number of years of post doctoral research and publications.

Tenure . The tenure of the selected candidates will be for a period not exceeding five years.

CSIR reserves the right to place the selected candidates at any place considered suitable for work other than the place from where the application has been forwarded.

The selection would be made through interview by high level discipline wise Selection Committees from among the candidates recommended by the Screening Committee on the basis of academic career and published/project work of the candidate.

How to Apply : Application form for the fellowship/associateship may be obtained from the Under Secretary, EMR, CSIR Complex Building, Pusa, Dr. K.S. Krishnan Marg, New Delhi-110 012 with effect from August 1, 1988 personally or by post by sending a self addressed and duly stamped (Rs. 1.60) envelope of the size of 15 cm. × 25 cm. (5½" × 9").

The envelope must be superscribed with "Application Form for SRF OR RA : Science, Medical or Engineering." Application complete in all respects duly sponsored by the authorities of Institutes/Universities/Research Laboratories (where the candidate proposes to undertake research) alongwith copies of research papers, attested true copies of all relevant certificates, marksheets and testimonials (originals need not be sent) and a crossed Indian Postal Order of Rs. 20/- drawn in favour of Jt. Secy. (A), CSIR payable at New Delhi post office should be sent by Registered Post, addressed to Under Secretary, EMR, CSIR Complex, Pusa, Dr. K.S. Krishnan Marg, New Delhi-110 012. Scheduled caste/tribe candidates and physically handicapped candidates are exempt from payment of application fee. Last date for receipt of application is **31st August, 1988** (for remote areas **10 Sept., 1988**).

Check List and Summary Sheet must be sent with the Application. All the Papers of the Application must be stitched by thread or Tag before posting to keep them intact. The envelope containing the Application must be superscribed with "Application for SRF OR RA" as the case may be. No Application will be entertained after the expiry of last date. No interim enquiries will be attended to. Canvassing in any form will be a disqualification.

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For further details please contact :

Director
International Institute for Population Sciences
Govandi Station Road,
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MINISTRY OF DEFENCE

Defence Research & Development Organisation

Openings for a Challenging and Rewarding Career in the Field of Defence Research and Development

Advertisement No. 017/RAC/88

The DRDO undertakes research and development projects for upgrading the technology to meet the multitudinous requirements of fighting forces of the country. Excellent career opportunities affording a challenging and rewarding work experience in different streams of disciplines exist There are about 40 Laboratories/Establishments located all over the country equipped with the latest R & D facilities. Labs are located in Delhi, Bangalore, Hyderabad, Pune, Madras, Bombay, Dehradun, Cochin, Visakhapatnam, Balasore, etc.

Applications are invited for the following positions:-

Scientist 'F' (Rs. 5100-6300) – 2 Posts

Item No. 1 (Terminal Ballistic Research Lab. Chandigarh) – 1 post

Essential Qualifications : (i) At least second class Master's degree in Physics/Chemistry/Maths or Bachelor's degree in Engineering from a recognised University or equivalent. (ii) Ten years research, design or development experience in the area of armour defeating projectiles and their immunity profiles, performance evaluation of terminal ballistics and having knowledge of Physics or Chemistry of explosive/armour stores and special instrumentation required for ballistics/detonics studies of which two years should be in the capacity of senior scientist/R&D manager in a reputed R&D organisation. Desirable Qualifications: (i) Master's degree in Engineering or Doctorate degree in Physics/Chemistry/Maths.

Item No. 2 (Defence Research & Development Estt., Gwalior)—1 post

Essential Qualifications : (i) At least second class master's degree in Chemistry from a recognised university or equivalent. (ii) Ten years research and development experience in the synthesis and process development of Organophosphorus and other toxicological compounds having knowledge of instrumental/analytical techniques and detection/decontamination/protective measures of which two years should be in the capacity of a Senior Scientist/R&D Manager in a reputed Research and Development Organisation with proven R&D capabilities by way of Patents/Publications in reputed journals in the above mentioned areas. Desirable Qualifications: Doctorate degree in the relevant area.

Scientist 'E' – (Rs. 4500-5700) — 3 posts

Item No. 3 (INMAS, DELHI)—1 post

Essential Qualifications : (i) At least second class Master's Degree in Organic/Pharmaceutical Chemistry/Bio-chemistry from a recognised university or equivalent. (ii) Ten years research and development experience in the area of Radiopharmaceuticals used in Nuclear Medicines. Desirable Qualifications: Doctorate Degree in the relavant field.

Item No. 4 (ATV, New Delhi)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Metallurgical/Mechnical Engineering from a recognised University or equivalent. (ii) Ten years research, design or development experience in multidisciplinary research, programmes involving shock vibration, stress analysis, reliability studies, material sciences and corrosion as evidenced by published work out of which two years should be in a responsible capacity. Desirable Qualifications : (i) Master's degree in Metallurgical/Mechanical Engineering.

Item No. 5 (Defence Research and Development Lab, Hyderabad) – 1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Electronics/Telecommunications, Electronics and Communications/Computer Engg. from a recognised university or equivalent. (ii) Ten years' research, design and development experience in developing computer-based Management Information System for R & D projects of which at least three years should be in a responsible position. Desirable Qualifications: (i) Master's degree in Electronics/Telecommunication/Electronics and Communication/Computer Engg. (ii) Experience in planning and commissioning of communication/computer systems.

Scientist 'D' (Rs. 3700-5000) – 12 posts

Item No. 6 (DEBEL, Bangalore) – 1 post

Essential Qualifications: (i) A Medical qualification in the First Schedule or the Second Schedule or part II of the Third Schedule to the Indian Medical Council Act 1956 (102 or 1956). Holders of Medical qualifications included in Part II of the said Third Schedule should also fulfil the conditions specified in sub-section (3) of Section 13 of the said Act (ii) Post Graduate Degree qualification in Aviation Medicine (iii) Seven years practical and administrative experience in the field of Aviation Medicine.

Item No. 7 (Defence Electronics Research Laboratory, Hyderabad) – 1 post

Essential Qualifications : (i) At least Bachelor's degree in Electrical/Communication Engineering. (ii) 8 years research/design/or development experience in the area of electronics Warfare and Radar Systems of which atleast five years should be in design, development and qualification of airborne EW systems including invironmental, dynamic load and flight testing. Desirable Qualifications: Master's/Doctorate degree in Electrical/Communication Engg.

Item No. 8 (Defence Electronics Research Laboratory, Hyderabad)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Electronics Engg. from a recognised university or equivalent. (ii) Eight years research, design or development experience in the area of electronic warfare and radar systems. Desirable Qualifications: Master's Degree in Electronics Engg. with specialisation in Radar Engg.

Item No. 9 (Inst. of Nuclear Medicine and Allied Sciences, Delhi)—1 post

Essential Qualifications: (i) At least second class Master's degree in Physics/Biophysics from a recognised University or equivalent. (ii) Eight years research, design or development experience in the field of Nuclear Magnetic Resonnance Imaging and Spectroscopy of biological systems. Desirable Qualifications: (i) Doctorate degree in the relevant field. (ii) Proven ability to direct research in the above fields.

Item No. 10 (Interim Test Range, Balasore)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Computer Science/Electronics Engineering. (ii) Eight years research, design or development experience of real time software on VAX 11/PDP-11, networking and system hardware maintenance. Desirable Qualifications: (i) Master's degree in Computer Science/Electronics Engineering. (ii) Experience on range software development and MIS Software development and personal computers/UNIX and 'C'.

Item No. 11 (Interim Test Range, Balasore)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Instrumentation/Electrical Electronics and Telecommunication Engg. from a recognised University or equivalent (ii) Eight Years' research, design or development experience in telemetry, telecommand and/or instrumentation and/or process control and/or data recording, acquisition and reduction. Desirable Qualifications: Master's degree in the relevant area

Item No. 12 (Electronics Radar & Development Estt., Bangalore)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Electronics/Electrical Engg. from a recognised University or equivalent. (ii) Eight years research, design or development experience in microwave transmitter systems, high voltage power supplies and control circuits and microwave measurement. Conversant with transfer of technology of the design to production agency. Desirable Qualifications: (i) Master's degree in the relevant area.

Item No. 13 (Defence Research & Development Lab., Hyderabad)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Electronics and Communication Engg. from a recognised university or equivalent. (ii) Eight years research, design or development experience in the area of Array Processing Techniques in Radar, Navigation and Signal Processing. Desirable Qualifications: (i) Master's degree in the relevant area.

Item No. 14 (Defence Research & Development Lab., Hyderabad)—1 post

Essential Qualifications: (i) At least second class Master's degree in Mathematics/Physics from a recognised University or equivalent. (ii) Eight years research, design or development experience in Applied Mathematics/Theoretical Physics with knowledge of Scientific Programming/parallel computing/computational fluid Dynamics. Desirable Qualifications: (i) Doctorate degree in mathematics/Theoretical Physics (ii) Experience in using mainframe computers.

Item No. 15 (ATV, New Delhi)—1 post

Essential Qualifications: (i) At least second class Bachelor's degree in Metallurgical/Chemical Engineering from a recognised university or equivalent. (ii) Eight years research, design or development experience in dealing with Marine Metallurgy out of which at least 4 years experience in dealing with corrosion and its preventive measures. Desirable Qualifications: Master's degree in Metallurgical/Chemical Engineering with knowledge of CAD/MIS.

Item No. 16 (Naval Physical and Oceanographic Lab., Cochin)—1 post

Essential Qualifications : (i) At least second class Master's degree in Physics/Applied Physics or Bachelor's degree in Mechanical or Instrumentation Engg. from a recognised university or equivalent. (ii) Eight years research, design or development experience in instrumentation and measurement system out of which two years should be in a responsible capacity involving organising/co-ordinating group activities. Desirable Qualifications : (i) Doctorate degree in Physics/Applied Physics or Master's degree in Mechanical/Instrumentation Engg.

Item No. 17 (Addl. Director of Aeronautics, Bangalore)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Mechanical/Aeronautical Engg. from a recognised university or equivalent. (ii) Eight years research, design or development experience in airworthiness/quality assurance of aircraft/gas turbine engines. Desirable Qualifications : (i) Master's degree in Mech./Aeronautical Engg

Scientist 'C' (Rs. 3000-4500)—22 posts

Item 18 (Microwave Tube R & D Centre, Bangalore)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Electronics Engineering or Master's degree in Physics with specialisation in Electronics from a recognised University or equivalent. (ii) Four years research, design or development experience in the field of Microwave tubes/Microwave engineering. Desirable Qualifications : (i) Master's or Ph D. degree in the relevant field. (ii) Experience in Computer-Aided-Design and Simulation in the field of Microwave tubes/Microwave engineering.

Item No. 19 (Interim Test Range, Balasore)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Electronics/Electrical Communication Engg. with specialisation in optical image processing from a recognised University or equivalent. (ii) Four years research, design or development experience in modern photo/image processing techniques/optical Imaging and interpretation. Desirable Qualifications : (i) Master's degree in Electronics/Electrical/Communication Engg. (ii) Experience in use of Cine/TV and high speed cameras and related equipment/processing.

Item No. 20 (Defence Electronics Application Lab., Dehradun)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Electronics & Communications Engineering/Telecommunications Engg. from a recognised University or equivalent *(ii)* Four years research, design or development experience in *microwave*/millimetric waves solid state circuits/sub-systems for communications/radar systems. Desirable Qualifications : (i) Master's degree in Telecommunications/Electronics & Communications Engineering. (ii)Knowledge or design/development of microwave/millimetric wave integrated circuits using computer software.

Item No. 21 (Air Force Training School, Jalahalli, Bangalore)—1 post

Essential Qualifications : *(i) At least* second class Bachelor's degree in Electronics/Communication Engg. from a recognised university or equivalent. (ii) Four years research, design or development experience in digital Communication/Modern radar. Desirable Qualifications : (i) Doctorate degree in the relevant field (ii) Candidates with experience in teaching will be preferred.

Item No. 22 (Addl. *Director of* Aero, Bangalore)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Aeronautical/Mechanical Engg from a recognised university or equivalent. (ii) Four years research, design or development experience in the field of Aircraft Structures with special reference to use of composites and type certification of aircraft Helicopter. Desirable Qualifications : Master's degree *in* Aeronautical/Mechanical Engineering.

Armament Research and Development *Estt.*, Pune—3 posts

Item No. 23 : Essential Qualifications : *(i)* At least second class Bachelor's degree in Mechanical/Aeronautical engineering from a recognised university or equivalent. (ii) Four years research design or development experience in the field of configuration design of wind tunnel testing, post flight analysis, computational fluid dynamics. Desirable Qualifications : (i) *Master's degree in Mech /Aero Engg*

Item No. 24 : ***Essential Qualifications*** : *(i)* At least second class Bachelor's *degree* in Mechanical engineering from a recognised university or equivalent. (ii) Four years research, design or development experience in experimental stress analysis, vibrational analysis of externally excited systems and application of finite element technique for stress analysis. *Desirable Qualifications* : Master's degree in Mechanical *engineering.*

Item No. 25 : **Essential Qualifications** : *(i)* At least second class Bachelor's degree in Mechanical engineering from a recognised university or equivalent. (ii) Four years research, design or development experience in the field of complex mechanisms for high reliability/high speed automatic object handling and transfer systems. Thoroughly conversant with the *kinematics* and motion analysis of such mechanisms alongwith dynamics and force analysis required for strength calculations and material selection. Desirable Qualifications : (i) Master's degree in Mechanical Engineering (ii) Knowledge of modern manufacturing and inspection methods of precision components.

Defence Metallurgical Research Lab. Hyderabad – 2 posts

***Item* No. 26 : Essential Qualifications** : *(i)* At least second class Bachelor's degree in Mechanical Engineering from a recognised university or equivalent. (ii) Four years research, design or development experience in application of finite element technique to engineering problems. Desirable Qualifications : Master's degree in Mechanical Engineering. *(ii) Experience* and *publications in the field of dynamic fracture*

Item No. 27 : Essential Qualifications : At least second class Bachelor's degree in Chemical or Metallurgical Engineering. (ii) Four years experience in design operation maintenance of microprocessor based process control instrumentation for Chemical/Metallurgical plants. *Desirable* Qualifications (i) Master's degree *in* Chemical or Metallurgical engineering. (ii) Advanced studies in the areas of reaction engineering and process kinetics and transport phenomena.

Item No. 28 (ATV, New Delhi) 1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Computer Science from a recognised University or equivalent. (ii) Four years' research and development experience in system analysis and *design in a research orgn. Desirable Qualifications* : (i) Master's degree in Computer Science and knowledge of Computer Languages

Institute of Nuclear Medicine and Allied Sciences, Delhi—4 posts

Item No. 29 : Essential Qualifications (i) At least second class Bachelor's degree in Life Sciences from a recognised University or equivalent. (ii) Four year's research and development experience in the field of molecular genetics radiation genetics Desirable Qualifications : (i) *Doctorate degree in the relevant field.* (ii) Experience in the field of cell and molecular biology and recombinant DNA techniques.

Item No. 30 : Essential Qualifications : (i) A medical qualification included in the First Schedule or the Second Schedule or Part II of the Third Schedule to the Indian Medical Council Act 1956 (102 of 1956). Holders of Medical qualifications included in Part II of the said *Third Schedule* should also *fulfil* the conditions specified in sub-section (3) of section 13 of the said Act. (ii) Post-graduate degree in Radiodiagnosis/Radiotherapy. (iii) Three years practical and administrative experience in the field of NMR imaging and spectroscopy.

***Item* No. 31 : Essential Qualifications** : (i) At least second class Master's degree *in Physics/Bio-Chemistry Physical Chemistry from a recognised* University or equivalent. (ii) Four years' research and development experience in the field of molecular cell Biology. Desirable Qualifications : (i) Doctorate degree in the relevant field. (ii) Experience in studies pertaining to Magnetic Resonance of Biological Systems.

Item No. 32 : Essential Qualifications : (i) A *medical* qualification included in the First Schedule or the Second Schedule or Part II of the Third Schedule to the Indian Medical Council Act 1956 (102 of 1956). Holders of Medical qualifications included in Part II of the said Third Schedule should also fulfil the conditions specified in Sub-section (3) of section 13 of the said Act. (ii) Post-graduate degree in Radiodiagnosis/Imaging/Diploma in Radiation Medicine. (iii) 3 years practical and administrative experience in the field of NMR imaging and spectroscopy.

Naval Chemical and Metallurgical Lab. Bombay—2 posts

Item No. 33 : Essential Qualifications : (i) At least second class Bachelor's degree in Mechanical/Metallurgical Engg. from recognised University or equivalent. (ii) Four years' research, design or development experience in the areas of solidification structure property correlation in cast irons and in the use of sophisticated equipment for micro-structural evaluations. Desirable Qualifications : (i) Master's degree in Metallurgy Mechanical Engineering (ii) Published work in reputed journals in the above areas.

Item No. 34 : Essential Qualifications : (i) At least second class Master's degree in Chemistry with specialisation in Physical Chemistry from a recognised University or equivalent (ii) Four years research, design or development experience in the area of electrochemical corrosion with knowledge of instrumental analysis Desirable Qualifications : (i) Doctorate in Chemistry in the relevant area

Item No 35 : (Resident Technical Office (H), Bangalore) - 1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Aeronautical mechanical Engg. from a recognised University or equivalent. (ii) Four years' research, design or development experience in the field of Aerodynamics and Aircraft design and type certification of Aircraft/Helicopter. Desirable Qualifications : Master's degree in Aeronautical/Mechanical Engg

Item No. 36 (Resident Technical Office, Korwa)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Electronics/Electrical Engineering from a recognised University or equivalent. (ii) Four years' research, design or development experience in the field of avionics systems for military aircraft. Desirable Qualifications : Master's degree in Electronics/Electrical Engg.

Item No. 37 (Defence Electronics Research Lab. Hyderabad)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Electronics Telecommunication Engineering from a recognised University or equivalent (ii) Four years' research, design or development experience in the field of Marine communication and Radar Equipments. Desirable Qualifications : (i) Master's degree in Electronics/Telecommunication Engg. (ii) Knowledge of Weapon-Control System/EW Equipments.

Item No. 38 (Defence Research & Development Estt., Gwalior)—1 post

Essential Qualifications: (i) At least second class Master's degree in Inorganic Chemistry from a recognised University or equivalent. (ii) Four years' research, design or development experience in the area of toxicological effects of heavy metals in the biological/environmental systems, with knowledge of instrumentation techniques related to genetic engineering. Desirable Qualifications : Doctorate degree in Chemistry.

Item No. 39 (Defence Scientific Information & Doc. Centre Cell, Hyd.)—1 post

Essential Qualifications (i) At least second class Master's degree in Science or Bachelor's degree in Engineering or Technology from a recognised university or equivalent (ii) Four years' research experience in production of scientific/technical publications in a Govt. organisation or a publishing firm of repute. Desirable Qualifications: (i) Experience in a supervisory capacity in a phototypesetting-cum-offsetting printing press, (ii) Diploma in Journalism from a recognised university/institution.

Item No. 39-A. Scientist 'C' (Solidstate Physics Laboratory, Delhi)—1 post

Essential Qualifications : (i) At least second class Master's Degree in Physics with specialisation in Electronics or Bachelor's Degree in Electronics Engineering from a recognised University or equivalent. (ii) Four years research & development experience in Semi-Conductors materials and devices. Desirable : Doctorate Degree in Physics or Master's Degree in Engineering in the relevant areas.

Scientist 'B' (2200-4000) 47 posts (UR -29, SC—9, ST—9)

Item No. 40 (Scientific Analysis Group, Delhi etc.) —5 posts (UR—3, Sc -1, ST—1)

Essential Qualifications : (i) At least second class Master's degree in Maths Applied Maths/Statistics from a recognised university or equivalent. Desirable Qualifications : Doctorate degree in Maths/Applied Maths Statistics.

Item No. 41 (Services Selection Boards)—9 posts (UR—5, SC—2, ST—2)

Essential Qualifications : (i) At least second class Master's degree in Psychology with specialisation in experimental/clinical psychology from a recognised university or equivalent. Desirable Qualifications : Doctorate degree in experiment/Clinical Psychology.

Item No. 42 (Def. Research Lab., Tezpur & Def. Lab. Jodhpur)—2 posts (UR)

Essential Qualifications : (i) At least second class Master's degree in Agriculture Science from a recognised university or equivalent. Desirable Qualifications : (i) Doctorate degree in Agriculture Science. (ii) Candidates with experience of working in temperate climate/high altitude and arid zones would be preferred.

Item No. 43 (Def. Research Lab., Tezpur & Def. Agriculture Lab., Almora)—2 posts (UR—1, ST—1)

Essential Qualifications : (i) At least second class Master's degree in Zoology with specialisation in Entomology/Cytogenetics from a recognised university or equivalent. Desirable Qualifications : (i) Doctorate degree in Entomology/Cytogenetics. (ii) Experience in working at high altitude /temperate climate.

Item No. 44 (Defence Research Lab., Tezpur)—1 post (UR)

Essential Qualifications : (i) At least second class Master's degree in Animal Husbandry/Veterinary Science from a recognised university or equivalent. Desirable Qualifications : (i) Doctorate degree in Animal Husbandry/Veterinary Science. (ii) Experience of working in the relevant field at high altitude.

Item No. 45 (Defence Research Lab, Tezpur)—1 post (SC)

Essential Qualifications : (i) At least second class Master's degree in Biochemistry from a recognised university or equivalent. Desirable Qualifications : (i) Doctorate degree in Biochemistry. (ii) Experience of working in the relevant field at high altitude.

Item No. 46 (Defence Lab., Jodhpur)—8 posts (UR—4, SC—2, ST—2)

Essential Qualifications : (i) At least second class Master's degree in Physics/Applied Physics/Instrumentation with specialisation in Infra red/remote sensing/solid state Physics from a recognised university or equivalent. Desirable Qualifications : Doctorate degree in Remote Sensing/Infra red/solid state Physics.

Item No. 47 (Naval Chem & Metallurgical Lab., Bombay & Terminal Ballistics Research Lab., Chandigarh)—2 posts (UR—1, ST—1)

Essential Qualifications : (i) At least second class Bachelor's degree in Chemical Engineering from a recognised university or equivalent. Desirable Qualifications : (i) Master's degree in Chemical Engineering. (ii) Experience in Process development / Reaction kinetics/Polymer Science and Technology.

Item No 48 (Defence Metallurgical Research Lab/ Naval Chemical & Metallurgical Lab., Bombay) —4 posts (UR—2, SC—1, ST—1)

Essential Qualifications : (i) At least second class Bachelor's degree in Metallurgical Engineering or Master's degree in Material Science from a recognised university or equivalent. Desirable Qualifications : Master's degree in Metallurgical Engineering or Doctorate degree in Material Science

Item No. 49 (Naval Chemical & Metallurgical Lab., Bombay)—1 post (UR)

Essential Qualifications : (i) At least second class Bachelor's degree in ceramics Engineering from a recognised university or equivalent. Desirable Qualifications : Master's degree in Ceramics Engineering.

Item No. 50 (Defence Lab., Jodhpur)—2 posts (UR)

Essential Qualifications : (i) At least second class Master's degree in Organic/Physical Chemistry from a recognised university or equivalent. Desirable Qualifications : Doctorate degree in the relevant fields.

Item No. 51 (INS, Lonavala)—2 posts (UR—1, ST—1)

Essential Qualifications : (i) At least second class Bachelor's degree in Mechanical Engineering from a recognised university or equivalent. Desirable Qualifications : (i) Master's or Doctorate degree in Mechanical Engineering (ii) Experience of teaching graduate classes in the above discipline.

Item No 52—4 posts (UR—2, SC—1, ST—1)

Essential Qualifications : (i) At least second class Bachelor's degree in Engineering or Master's degree in Science from a recognised university or equivalent. (ii) Master of Business administration degree with specialisation in Personnel Management/Financial Management. Desirable Qualifications : Master's degree in Engg or Doctorate degree in Science.

Item No. 53—4 posts (UR)

Essential Qualifications : (i) A medical qualification included in the first Schedule or the Second Schedule or Part II of the Third Schedule to the Indian Medical Council Act 1956 (102 of 1956). Holders of Medical qualifications included in part II of the said Third Schedule should also fulfil the conditions specified in Sub-section (3) of section 13 of the said Act (ii) Completion of compulsory rotating internship. Desirable Qualifications : Post Graduate degree in any specialisation or Diploma in radiation medicine.

Chief Construction Engineers (Rs. 5100-5700) 2 posts (Non-DRDS)

Item No' 54 (Directorate of Works, New Delhi)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Civil/Mechanical/Electrical Engineering/Architecture from a recognised university or equivalent. (ii) Twelve years experience in planning or execution of civil works Desirable Qualifications : Experience in planning or execution of major timebound projects of Workshops/factories/Research Establishments

Item No. 55 (Director of Estate)—1 post

Essential Qualifications : (i) At least second class Bachelor's degree in Civil/Electrical/Mechanical Engineering or Architecture from a recognised university or equivalent. (ii) Nine years experience in planning or execution of works (iii) Experience in planning/ execution of major time-bound projects of workshops/ Factories/Research Establishments OR Experience in Estate Management (i.e. encroachments, developments, usufructs and litigation etc); Provision of civic amenities for inhabited estates, arboriculture and environmental health, civic taxes etc. and expert knowledge of Land Acquisition Laws, Land valuation techniques, rules related to negotiated purchase/hiring of immovable property. Desirable Qualifications : Knowledge of Scales of accommodation, Budget monitoring and quantity surveying.

GENERAL CONDITIONS

1. **Posts at S. No. 21, 41 and 51 are outside DRDO but are encadred to Defence Research & Development Service (DRDS).**

2. **Posts of Chief Construction Engineers (at S. Nos. 54 & 55) are in DRDO but are encadred to Defence Research & Development Service (DRDS).**

3. **Promotion Prospects:** DRDO offers excellent opportunities for career advancement as Scientist. Result-oriented motivated scientists can look forward to promotions to following grades of scientists :

(i) Scientist 'C' : Rs. 3000-4500, (ii) Scientist 'D' : Rs. 3700-5000, (iii) Scientist 'E' : Rs. 4500-5700, (iv) Scientist 'F' : Rs. 5100-6300, Scientist 'G' : Rs. 5900-7300.

4. **Age Limits :** (i) For Scientist 'B' : Not exceeding 28 years. (ii) For Scientist 'C' not exceeding 35 years, (iii) For Scientist 'D' not exceeding 45 years, (iv) For Scientist 'F' not exceeding 50 years. Age is relaxable by 5 years in case of Govt. servants and those belonging to Scheduled Caste and Scheduled Tribes communities Crucial date for determining age is 31 August, 1988.

5. **Method of applying.** Neatly type-written applications should be sent to Director. Recruitment & Assessment Centre, Lucknow Road, Timapur, Delhi-110007, preferably by Registered cover, superscribed "Application for the post of Scientist--" "Item No.—" on plain paper in the prescribed format (reproduced below) accompanied by a crossed non-refundable Postal Order of the value of Rs 8/- drawn in favour of Senior Accounts Officer, Recruitment & Assessment Centre, DRDO, payable at New Delhi There is no fee for SC ST candidates Last date of receipt of applications is 31 August, 1988. In respect of candidates from Andaman & Nicobar Islands Lakshdweep and abroad, last date of receipt of applications 14 September, 1988.

6. **Method of Selection :** A written test may be conducted for certain posts at selected places. No TA DA would be admissible for this purpose Persons called for interview would be reimbursed actual tain bus fare by shortest route limited to second class rail fare from the normal place of residence to the place of interview.

7. Only Indian nationals need apply.

8 Candidates should send two self-addressed unstamped envelopes of 23 x 10 cms alongwith the application.

9. One copy of recent passport size photograph should be pasted on right hand corner of the first page of application.

10. Attested copies of certificates/testimonials should be attached to the application form. Self attested copies will be accepted. NO ORIGINALS SHOULD BE FORWARDED.

11. Candidates will have to produce original certificates at the time of interview.

12. Incomplete applications or those received late will be rejected and no correspondence would be entertained in this regard.

13. The prescribed Essential Qualifications are minimum and the mere possession of the same does not entitle candidates to be called for interview. Where the number of applications received in response to an advertisement is large and it will not be convenient or possible for the Recruitment & Assessment Centre (RAC) to interview all these candidates, the RAC may restrict the number of candidates for interview to a reasonable limit on the basis of Qualifications and Experience higher than the minimum prescribed in the Advertisement or by holding a Screening Test.

14. In case SC/ST candidates are not available in requisite number, general candidates will be considered for the posts reserved for SC/ST.

15. Candidates working in Government/Public Sector Undertakings/Autonomous Organisations must apply through proper channel They shall not be Interviewed if they fail to produce a 'no objection' certificate from their Employer at the time of Interview.

16. Prescribed essential qualifications are the barest minimum and mere possession of the same does not entitle any candidate to be called for interview.

17. Candidates desirous of applying for more than one post may apply separately for posts indicating item No of the posts

18 Candidates on appointment will have the opportunity to carry out Ph D. with external registration and may be sponsored for doing M. Tech.

19 Opportunities are also available for study leave for carrying out higher studies abroad.

20 DRDS Officers may be sponsored for training abroad.

21. Though initial place of posting is indicated against some of the posts, yet candidates have the liability to serve anywhere in India

22. Handwritten applications will not be entertained.

23. Number of posts against each item is tentative and may vary.

24. All extra sheets used by the candidates MUST be duly authenticated by them.

25 Knowledge of French. German, Russian, Japanese and Chinese is a desirable qualification for all posts.

CANVASSING IN ANY FORM WILL MEAN DISQUALIFICATION

............PROFORMA APPLICATION...........

Application for the post of Scientist——Item No.——

1. Advertisement No. :
2. Item No. :
3. Details of Postal Order(s)
   No., Date and Amount :

Affix Passport
size
latest Photograph

4. Name in full (Shri/Smt/Km) (in block letters)

5. (a) Date of Birth (in Christian era in figures) :
(b) Age as on 31 Aug. 1988.

6. Nationality :

7. Marital Status :

8. Father's/Husband's name :

9. Address for correspondence :

10. Permanent Address (in block letters with pin code) :

11. Nearest Railway Station :

12. Whether belong to SC/ST (if yes, attach certificate) :

13. Educational Qualifications :

Sr. No.	Course Passed	University Institution Board	Year of Passing	Subject taken	Percentage of Marks (Attach attested copies)

*In chronological order from X Standard (SSLC/HS/HSC) onwards

14 Professional Training :

Organisation	Period From	To	Details of Training

15. Employment Record :

Name & address of employer	Period of service from to	Designation of the post held Name of Estt.	Scale of pay of each post	Detailed description of work	Reason for leaving

16. Present Basic pay :

Total emoluments :

Salary expected :

17. Minimum joining time required :

18. Resume of research work/experience, if any :

19. Field of special interest :

20. Are you under any contractural obligations to serve Central/State Govt/Any other public sector undertaking or Autonomous body and if so the details.

21. Details of relatives already employed in DRDO :

Name of Relatives	Relationship	Lab/Estt in	Post Held

22. Have you applied for any post in DRDO during the past two years ? If yes, give particulars :

Sr.	No. and Date of Advt.	Name of Post Discipline	Date of Interview	Remarks

23. Any other information you may wish to add (Use separate sheet if necessary)

24. Declaration.

I declare that the foregoing information is correct and complete to the best of my knowledge and belief and nothing has been concealed/distored. If at any time, I am found to have concealed/distored any material information, my appointment shall be liable to summary termination without notice/compensation. I will, if and when required, take up duty in the discharge of government assignments anywhere in India.

Place : Signature of Candidate

Date :

DAVP 88/288

PT. SUNDERLAL MEMORIAL DEGREE COLLEGE

(AFFILIATED TO THE UNIVERSITY OF KANPUR)

KANNAUJ

Wanted a lecturer in education in the Scale Rs 2200-4000 on ad-hoc basis till 27-1-1989 (Likely to continue) or till an appointee of U.P. Higher Education Service Commission joins

The application should reach the College office latest by 25-8-1988. The prescribed application form alongwith prescribed qualifications is available in the college office on payment of Rs. 21.00.

Dr. P.N. Tandon
SECRETARY

School of Correspondence Courses

Andhra University-Visakhapatnam-530 003

ADMISSION NOTIFICATION

Applications are invited from the candidates residing in India for admission into the following courses in the School of Correspondence Courses for the academic year 1988-89

	COURSE	ELIGIBILITY
1.	Introductory Course (both English and Telugu medium). This course is offered to prepare the candidates for Entrance Examination to be held in June, 1989 for Liberalised admission into B.A./B.Com. courses without any formal academic qualification by supplying study material . 6 months duration.	No formal academic qualification is required. But the candidate should have completed 21 years of age by 1-7-1989.
2.	B.A. (both English and Telugu medium) with the combinations of Spl. English, Spl. Telugu, History, Economics, Politics, Public Administration, Sociology and Mathematics : 3 years duration.	Intermediate P.U.C. or equivalent or pass in the Entrance Examination conducted by this School.
3.	B.Com. (both English and Telugu medium) : 3 years duration.	Intermediate/P.U.C. or equivalent or pass in the Entrance Examination conducted by this School.
4.	B.Sc. (English medium only) with the combination of Mathematics, Physics and Chemistry : 3 years duration	Intermediate/P.U.C. or equivalent with Physical Sciences and Mathematics.
5.	M.A. Economics (English medium only) 2 years duration.	B.A. with Economics (Main or Ancillary).
6.	M.A. English Language and Literature : 2 years duration.	B.A./B.Sc. B Com.
7.	M.A. Public Administration (English medium) : 2 years duration.	B.A. with Politics or Public Administration as Main or Ancillary or B L. or B.G.L.
8	M Com. (English medium only). Specializations offered : Taxation, Banking, Accounts, Agricultural Economics and Co-operation 2 years duration.	B.Com. only.
9.	Post-Graduate Diploma in Co-operation and Rural Studies (English medium only) 1 year duration.	B.A. (Economics as Main or Ancillary) B.Com./B.Sc (Agriculture) for inservice candidates working in Cooperatives and allied institutions including non-officials. OR B.A./B.Com. B.Sc. for permanent employees of Co-operatives who have put in more than 5 years of service, subject to production of a certificate of employment countersigned by the concerned Deputy Registrar of Co-operatives.

Applications will be issued from 8.8.1988. Filled-in applications should reach the undersigned on or before 30-9-1988.

Intending candidates may write to the undersigned by **Designation** for application form and prospectus by sending Rs. 10 - by Demand Draft Money Order in favour of the Director, School of Correspondence Courses, Andhra University, Waltair-530 003. The candidates may also remit cash at the CASH COUNTER of the School of Correspondence Courses towards application form and Prospectus. **Postal Orders and Cheques will not be accepted.**

The Admission Application Forms and Prospectus are also available at our following Study Centres on payment of Rs. 10 - through Demand Draft drawn in favour of the Director, School of Correspondence Courses, Andhra University, Waltair-530 003 :

1. Government College, Srikakulam, 2. M.R. College, Vizianagarm, 3. Mrs. A.V.N. College, Visakhapatnam, 4. Government College, Rajahmundry, 5. P.R. Government College, Kakinada, 6. Sir C.R. Reddy College, Eluru, 7. S.R.R. & C.V.R. Govt. College, Vijayawada, and 8. A.C. College, Guntur.

The School has no agents and takes no responsibility for the prospectus issued and promises made for admission by any other institutions.

Special Note for the successful candidates in B.A./B.Com. Entrance Examination of June, 1988.

All the successful candidates in the B.A. B.Com Entrance Examinations held in June, 1988 need not apply for the admission application form and prospectus for admission into 1st year degree course. The School will arrange to send the admission application form and prospectus along with the Marks Statements-cum-Eligibility Certificate to such candidates. They have to pay an amount of Rs. 10 - towards the cost of admission application form and prospectus along with the prescribed tuition fee at the time of admission. However, the duly filled-in admission application form along with the necessary enclosures including Demand Draft/M.O. receipt towards prescribed fee should reach the School of Correspondence Courses on or before the prescribed last date.

Prof. V. Abraham
DIRECTOR

CLASSIFIED ADVERTISEMENTS

BHARATHIAR UNIVERSITY
COIMBATORE - 641 046

Advertisement No.: 1725/B5/88-89

Dated : 28th July 88

Applications are invited for the following posts :

I. Department of Computer Science

1. Reader 2 (OC-1 SC/ST-1)

Qualification & Experience

(A) consistently good academic record.

(B) A Ph. D from an Indian or a Foreign University in Computer Science OR Computer Applications Information Systems OR Engineering with specialisation in Computer Applications and Information Systems and 5 years of Teaching/Research Experience in the field of Computer Science or Computer Applications.

OR

M.E./M. Tech with Computer Specialisation or M.C.A. with 7 years of Teaching/Research Experience in the field of Computer Science or Computer Applications.

OR

M.E., M. Tech with specialisation in Applied Electronics or Electronics and Communication Engineering with 8 years of Teaching/Research Experience in the field of Computer Science or Computer Applications.

Candidates with research interest in Systems, Support/DBMS/Experience in Software design would be preferred.

Maximum Age as on 1.7.88 : 45 years.

Scale of Pay

Rs. 1200-50-1300-60-1900 (U.G.C.) (likely to be revised)

2. Systems Analyst 1 (SC/ST)

Qualification & Experience

(A) A First Class M.E./M. Tech in Computer Specialisation/MCA with at least 1 year of proven experience in Business/Industrial software design, development and implementation.

OR

A First Class in M.E./M. Tech in Applied Electronics or Electronics and Communication Engg. with atleast 1 year of proven experience in Business/Industrial establishment in design and development of software.

OR

A First Class M.Sc. (Applied Mathematics) M.Sc. (Statistics) with at least Three years of proven experience in Business/Industrial software design, development, and implementation.

(B) Knowledge of FORTRAN, BASIC, COBOL, PASCAL essential and 'C' preferable.

Maximum Age as on 1.7.'88 : 40 years.

Scale of Pay

Rs. 700-40-1100-50-1600 (U.G.C.) (likely to be revised)

3. Key Punch Operator Systems Operator : 2 (OC-1 SC/ST-1) :

Qualification & Experience

(A) A II class Bachelor's Degree
OR
Diploma in Engineering
OR
Diploma in Commercial Practice

(B) At least 6 months of experience in operation of main-frame mini computer systems.

(C) Knowledge of typewriting, *programming language and experience in HCL—System 4 HCL—HORIZON III* preferable.

Maximum Age as on 1.7.'88 : 35 years.

Scale of Pay

Rs. 610-20-730-25-955-30-1075 (Tamil Nadu Govt. Scale of Pay).

In case SC/ST and BC candidates with suitable qualifications and experience are not available, other candidates will be considered against these vacancies as per Roster norms.

Any candidate applying for more than one post shall send separate application for each post.

Application form can be had from the Registrar, Bharathiar University, Coimbatore-641 046 on requisition accompanied by a self-addressed with Rc. 1.40 - paise stamped envelope (25 cm x 10 cm). Name of the post for which the application is intended shall be specified in the requisition.

Attested copies of certificates showing qualification, age, experience, etc., should be sent along with the application in the prescribed form (in Eight copies) together with Registration fee of Rs. 10 - in the form of Crossed Indian Postal Order dated not earlier than 1.8.1988 drawn in favour of the Registrar, Bharathiar University, Coimbatore-641 046.

Candidates in service shall submit their application through proper channel. Completed applications should reach the Registrar on or before 5.9.1988.

Incomplete applications and applications without the required registration fee will not be considered.

REGISTRAR

BHARATHIAR UNIVERSITY
COIMBATORE - 641 046

Advertisement No. 1301 B5 88-89

Dated : 28th July 1988

Bharathiar School of Management and Entrepreneur Development

Applications, in the prescribed form, are invited for the following posts in the Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore - 641 046.

Position	*No. of Vacancies*
Professor	1 (SC/ST)
Reader	2 (OC-1; SC/ST-1)
Lecturer	1 (OC-1)
Placement Officer	1 (OC-1)

Specialisations

Professor —Marketing

Reader —Finance and Accounting/Marketing

Lecturer —Finance and Accounting

Scale of Pay

Professor : Rs. 1500-60-1800-100-2000-125/2-2500

Reader/Placement Officer :
Rs. 1200-50-1300-60-1900

Lecturer : Rs. 700-40-1100-50-1600

(The scales of pay are likely to be revised as per the recommendations of the UGC and Government of Tamil Nadu).

Consultancy by faculty members will be permitted subject to University Rules.

The Qualifications and Experience required in the various positions are given below.

Professor : A minimum of high second class (55% or above) post-graduate degree or a diploma recognised as equivalent thereto in the concerned or related subject from a reputed Indian or Foreign University Institute with atleast 10 years of experience in teaching, research and or in Management out of which not less than five years should be in a cadre not below that of a University Reader or an equivalent position. A doctorate or an equivalent degree will be an additional qualification.

Reader : A minimum of high second class (55% or above) post-graduate degree or a diploma recognised as equivalent thereto in the concerned or related subject from a reputed Indian or Foreign University/Institute with atleast 5 years in post-graduate teaching, research and or Management, out of which not less than 3 years should be in a cadre not below that of a University lecturer. A Doctorate or an equivalent degree will be an additional Qualification.

Lecturer : A minimum of high second class (55% or above) post graduate degree or a diploma recognised as equivalent thereto in the concerned or related subject from a reputed Indian or Foreign University/Institute with not less than 2 years of post-graduate teaching/research experience. A Doctorate or an equivalent degree will be an additional qualification.

Placement Officer : Same as in the case of Reader. Additionally the candidate must be good at communication skills (both written and oral) and must have an aptitude for counselling the students for career development. Should be able to interact effectively with potential employers of MBA Graduates.

For the posts of Reader and Lecturer in Finance and Accounting, candidates with CA or ICWA will also be considered. Candidates may also be considered for posts other than that for which they have applied, if the University considers it necessary.

Maximum age as on 1.7.'88

Professor	: 50 Years
Reader/Placement Officer	: 45 Years
Lecturer	: 40 Years

In case SC/ST and BC candidates with suitable qualifications and experience are not available, other candidates will be considered against these vacancies, as per Roster norms.

Application forms can be had from the Registrar, Bharathiar University, Coimbatore - 641 046 on requisition accompanied by a self-addressed Rs. 1.40 - paise stamped envelope (25 cm x 10 cm). Attested copies of certificates showing qualifications, age, community, experience, etc., should be sent along with the application in the prescribed form (in Eight copies) together with Registration Fee of Rs. 10 - in the form of crossed Indian Postal Order dated not earlier than 1.8.'88 drawn in favour of the Registrar, Bharathiar University, Coimbatore - 641 046.

Any candidate applying for more than one post shall submit separate applications for each post.

Candidates in service shall submit their application through proper channel.

Completed applications should reach the Registrar on or before 5.9.1988.

Incomplete applications and applications without the required registration fee will not be considered.

REGISTRAR

RAJASTHAN AGRICULTURE UNIVERSITY : BIKANER

CAMP-UDAIPUR

Advertisement No. 7/88

Dated : July 28, 1988

Applications are invited on prescribed applications form for the following posts in Teaching/Research Extension on regular basis in the University. The application form and **Full Details about Qualifications as Prescribed by the University** etc. can be obtained from Shri P.P. Mathur, Deputy Registrar, University Camp Office, Udaipur, Pin-313001 on Payment of Rs. 5/- through crossed Indian Postal Order payable to the "Comptroller, Rajasthan Agriculture University, Camp-Udaipur" alongwith a self-addressed envelope of 27 cms. × 12 cms. size bearing Postal Stamp of Rs. 2.20 only and send the application form duly completed in all respect to the Registrar, Rajasthan Agriculture University, Bikaner (Rajasthan) **upto 10th September, 1988.**

Those candidates who have already applied for these posts in response to previous advertisement Nos. 11/86 dated 27.12.1986, 1/87 dated 29.1.1987 and 3/87 dated 17.6.1987 issued from Sukhadia University, Udaipur and No. 2/87 dated 28.12.1987 and 2/88 dated 27.1.88 issued from Rajasthan Agri. University, Bikaner (Camp : Udaipur) need not to apply again but they should please send their fresh Bio-data (one side typed) on plain paper to update the same on the above address failing which their earlier applications will not be considered.

Professor : Pay Scale : Rs. 1500-60-1800-100-2000-125/2-2500 (Likely to be revised).

Faculty of Agriculture

1.	Agronomy	2
2.	Plant Breeding & Genetics	4
3.	Soil Science & Ag. Chemistry	1

4.	Animal Production	1
5.	Extension Education	1

Faculty of Vety. & Animal Science'

1.	Director Research (Vety. & Animal Sc.)	1
2.	Associate Director (Vety. & Animal Sc.)	1
3.	Livestock Production Management	1
4.	Animal Nutrition	1
5.	Obstetrics & Gynaecology	1

Faculty of Agril. Engineering

1.	Soil & Water Conservation Engineering	1

Associate Professor : Pay Scale : Rs. 1200-50-1300-60-1900 (Likely to be Revised)

Faculty of Agriculture

1.	Agronomy	12
2.	Extension Eduction	4
3.	Entomology	2
4.	Bio-Chemistry	3
5.	Plant Physiology	1
6.	Plant Breeding & Genetics	3
7.	Plant Pathology	4
8.	Nematology	1
9.	Horticulture	2
10.	Soil Science & Ag. Chemistry	2
11.	Ag. Economics	1
12.	Agro. Forestry	2

Faculty of Home Science

1.	Child Development	1
2.	Home Management	1

Faculty of Vety. & Animal Science

1.	Animal Production	1
2.	Animal Breeding & Genetics	1
3.	Vety. Pathology	1
4.	Live-Stock Production & Management	1

Faculty of Agril. Engineering

1.	Farm Machinery & Power Engineering	1
2.	Soil & Water Conservation Engineering	2
3.	Electrical Engineering	1
4.	Mining Engineering	1

Assistant Professor : Pay Scale : Rs. 700-40-1100-50-1600 (likely to be Revised)

Faculty of Agriculture

1.	Agronomy	4
2.	Extension Education	5
3.	Plant Physiology	6
4.	Nematology	1
5.	Horticulture	5
6.	Bio Chemistry	2
7.	Limnology & Fisheries	1
8.	Agriculture Economics	5
9.	Agriculture Statistics	2
10.	Soil Science & Ag. Chemistry	5
11.	Plant Pathology	7
12.	Plant Breeding & Genetics	8
13.	Animal Production	5
14.	Entomology	1
15	Agro-Forestry	1

Faculty of Dairy Science

1.	Dairy Technology	1
2	Dairy Bacteriology	1

Faculty of Home Science

1.	Clothing & Textile	1
2.	Home Management	1

Faculty of Vety. & Animal Science

1.	Animal Breeding & Genetics	2
2.	Obstetrics & Gynaecology	2
3.	Vety. Medicine	3
4.	Livestock Production & Management	1

Faculty of Agriculture Engineering

1.	Electrical Engineering	1
2.	Mechanical Engineering	2
3.	Mining Engineering	1
4.	Civil Engineering	1
5.	Soil & Water Conservation Engineering	1
6.	Processing & Food Engineering	1
7.	Farm Machinery & Power Engineering	2
8.	System Engineer (Computer Application)	1
1.	Physics	1
2.	Mathematics	2
3.	Rural Sociology	1

General Note

1. Number of posts may be increased OR decreased.
2. Application forms received after the expiry of the last date may also be considered at the discretion of the Vice-Chancellor.
3. 16% posts would be reserved for Scheduled Caste and 12% for Scheduled Tribes, subject to general suitability.
4. A higher start in the grade may be considered for exceptionally qualified candidate
5. The University Reserves the Right not to Fill up Post(s) Advertised.
6. Application forms can also be Obtained from the Office of the Registrar, Bikaner.

REGISTRAR

GATE-89
GRADUATE APTITUDE TEST IN ENGINEERING
A REQUIREMENT FOR ADMISSION TO
POST GRADUATE PROGRAMME

GATE-89 will be held on
SUNDAY, FEBRUARY, 12, 1989
Details will be announced in
October, 1988

ORGANISING INSTITUTE
INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR

KONKAN KRISHI VIDYAPEETH

DAPOLI, DIST: RATNAGIRI

Advertisement No. KKV/EST/C/

Adv./XXV/11195/1988

Dated : 1st Aug. 1988

Applications in the prescribed form are invited for the undermentioned posts. Application forms can be obtained from the office of the Registrar, Konkan Krishi Vidyapeeth, Dapoli 415712, District : Ratnagiri, Maharashtra State on sending a self-addressed envelope (10 cms x 23 cms) affixing postage stamps of Re. 1 - and crossed Indian Postal Order worth Rs. 5 - (Rs. five only) payable to the Comptroller, Konkan Krishi Vidyapeeth, Dapoli, District : Ratnagiri Completed applications accompanied by a crossed Indian Postal Order worth Rs. 10 - (Rs. ten only) payable to the Comptroller, Konkan Krishi Vidyapeeth, Dapoli, District : Ratnagiri should reach this office not later than **12-9-1988.** Government servants and the staff working under the local bodies should necessarily apply through proper channel and their applications should reach this office through their employer not later than 27-9-1988. Applications received after the due date will not be considered A separate application with separate fee is required for each post.

(I) Office of the Vice-Chancellor

(1) Deputy Director of Research (Agri.) One post

(2) Medical Officer : One post

(3) Research Editor : One post

(II) Faculty of Agriculture

(A) Associate Professor and its equivalent

Agronomy discipline

(4) Associate Professor of Agronomy : Three posts (Reserved for SC/ST, DT & NT)

(5) Agronomist . One post

Horticulture discipline

(6) Horticulturist: One post

Agricultural Economics discipline

(7) Agricultural Economist : Two posts (One post reserved for SC ST DT & NT)

Agricultural Engineering discipline

(8) Agricultural Engineer : Two posts (One post reserved for SC/ST/ DT & NT)

Agricultural Botany discipline

(9) Associate Professor of Agricultural Botany : Two posts (One post reserved for SC/ST/DT & NT)

Agricultural Chemistry and Soil Science discipline

(10) Soil Scientist : One post

(11) Associate Professor of Food Science and Nutrition. : One post

Plant Pathology discipline

(12) Pathologist ; One post

Animal Husbandry and Dairy Science discipline

(13) Associate Professor of Animal Husbandry and Dairying : One post

(14) Scientist (Animal Nutrition) : One post

Agricultural Extension

(15) Scientist (Extension Education): One post (Reserved for SC ST DT & NT)

(B) Assistant Professor and its equivalent
Agronomy discipline

(16) Junior Meteorologist : One post Reserved for SC ST DT & NT)

Agricultural Chemistry and Soil Science discipline

(17) Biochemist : Two posts (One post Reserved for SC ST DT & NT)

Statistics discipline

(18) Junior Scientist (Statistics) : One post

(19) Assistant Statistician : One post (Reserved for SC ST DT & NT)

Animal Husbandry and Dairy Science discipline

(20) Assistant Professor of Veterinary Science : Two posts

Agricultural Engineering discipline

(21) Assistant Agricultural Engineer: One post (Reserved for SC ST DT & NT)

Horticulture discipline

(22) Assistant Professor of Horticulture: One post (Reserved for SC/ST, DT & NT)

Home Science

(23) Training Associate (Home Science) : One post (Reserved for SC ST/ DT & NT)

(C) Academic posts in the grade of Agricultural Officer, Agricultural Supervisor

(24) Agricultural Officer : Six posts (Four posts Reserved for SC/ST/DT & NT)

(25) Agricultural Supervisor : [Six posts (Four posts Reserved for SC/ST/ DT & NT)

(III) Faculty of Veterinary Science

(A) Associate Professor

(26) Associate Professor of Poultry Science. : One post

(27) Associate Professor of Medicine: One post (Reserved for SC/ST/DT & NT)

(28) Associate Professor of Dairy Science : One post

(B) Assistant Professor and its equivalent

(29) Assistant Professor of Animal Husbandry : One post (Reserved for SC/ ST DT & NT)

(30) Assistant Professor of Physiology : One post (Reserved for SC/ST/ DT & NT)

(31) Assistant Professor of Pathology: One post

(32) Assistant Professor of Bacteriology : One post

(33) Assistant Professor of Anatomy: One post

(34) Assistant Professor of Pharmacology : One post

(35) Assistant Professor of Food Science and Nutrition : One post

(36) Assistant Professor of Medicine: One post

(37) Gynaecologist : One post (Reserved for SC ST DT & NT)

(38) Assistant Director Incharge : One post (Reserved for SC ST DT & NT)

(39) Physician : One post

(40) Pathologist : One post (Reserved for SC ST DT & NT)

(C) Academic posts in the grade of Veterinary Officer

(41) Veterinary Officers and its equivalent : Eleven posts (Four posts Reserved for SC ST DT & NT)

(IV) Faculty of Fisheries Science

(A) Assistant Professor and its equivalent

(42) Assistant Professor of Fisheries Technology : Two posts (One post Reserved for SC/ST, DT & NT)

(43) Assistant Professor of Fisheries Engineering : One post

(44) Assistant Professor of Resources Economics and Statistics : Two posts

(45) Assistant Research Officer: Two posts (One post Reserved for SC ST/ DT & NT)

(B) Academic posts in the grade of Biologist/Biochemist/Senior Research Assistant/Junior Research Assistant/Gear Technician

(46) Biologist/Biochemist : Four posts (One Post Reserved for SC/ST/DT & NT)

(47) Senior Research Assistant : One post

(48) Junior Research Assistant : One post

(49) Gear Technician : One post

Pay Scale

(1) For the post at Sr. No. 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 26, 27 and 28 : Rs. 1200-50-1300-60-1900

(2) For the post at Sr. No. 16, 17, 18, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 34, 35, 36, 42, 43, 44 and 45 : Rs. 700-40-1100-50-1600

(3) For the post at Sr. No. 3 : Rs. 700-40-1100-50-1300

(4) For the post at Sr. No. 37, 38, 39 and 40 : Rs. 680-40-1100-50-1250.

(5) For the post at Sr. No. 2 : Rs. 600-30-750-EB-40-1150

(6) For the post at Sr. No. 24 : Rs. 550-25-750-30-900.

(7) For the post at Sr. No. 41, 46, and 47 : Rs. 500-20-700-25-900.

(8) For the post at Sr. No 25 : Rs. 395-15-500-20-700-Extn-20-800 (Higher starting of Rs. 410/- p.m. for Agricultural Graduate).

(9) For the post at Sr. No. 48 and 49 : Rs. 365-15-500-20-660-Extn-20-760.

Minimum Qualification for the posts

(a) For the post at Sr. No. 2.

Essential

(1) M.B.B.S. degree recognised by the Medical Council of India.

AND

(2) At least two years experience as a Registered Medical Practitioner.

Desirable

Postgraduate degree in Medicine/Surgery.

(b) For the post at Sr. No. 3

M. Sc. (Agri.) in Agricultural Extension with two years experience in Teaching/Research/Extension Education.

OR

Master's degree and two years experience in editing scientific report.

OR

Postgraduate degree/diploma in Agricultural journalism/journalism and two years experiance of editing scientific reports.

(c) For the post at Sr. No. 1, 4 to 10, 12, 13, 14, 15, 26, 27, 28 :

(1) Ph. D. in respective subject with five years experience in teaching/research/extension education of which two years should be in the cadre of Assistant Professor or it's equivalent.

OR

Master's degree in respective subject with seven years experience in teaching research extension education of which three years experience should be in the cadre of Assistant Professor or it's equivalent.

(2) Evidence of published papers in recognised journals.

(d) For the post at Sr. No. 11

(1) Ph. D. in Food and Nutrition/ Biochemistry with Nutrition Food Science and Technology with five years experience in teaching research extension education of which two years should be in the cadre of Assistant Professor of Food Science and Nutrition.

OR

Master's degree in Food and Nutrition Biochemistry with Nutrition Food Science and Technology with seven years experience in teaching/research/extension education of which three years experience should be in the cadre of Assistant Professor of Food Science and Nutrition.

(2) Evidence of published papers in recognised journals.

(e) For the post at Sr. No. 16 to 23, 29 to 34, 36 to 40 :

(1) Ph. D. in respective subject preferred.

OR

Master's degree in the respective subject with two years experience in teaching/research/extension education.

(2) Evidence of published papers in recognised journals.

(f) For the post at Sr. No. 42 to 45

(1) Ph. D. in Fisheries Science/Zoology/Marine Biology with thesis on Fisheries or Marine Biological problems preferred.

OR

Master's degree in Fisheries Science/Zoology/Marine Biology with two years experience in teaching/research/extension.

(2) Evidence of published papers in recognised journals.

(g) For the post at Sr. No. 35

(1) Ph. D. in Food and Nutrition/Biochemistry with Nutrition/Food Science and Technology preferred.

OR

Master's degree in food and Nutrition/Biochemistry with Nutrition Food Science and Technology with two years experience in teaching research/extension education.

(h) For the post at Sr. No 24, 41, 46, and 47 :

Master's degree in respective subject.

OR

Bachelor's degree in 1st class with distinction. Atleast 2nd class Bachelor's degree with three years' experience as Junior Research Assistant or it's equivalent.

(i) For the post at Sr. No. 25, 48 and 49

Bachelor's degree in the respective faculty.

Note

For the post at Sr. No 49, the experience of Craft and Gear, preferably with actual experience of fishing will be preferred.

Note for Qualification

(a) For the posts at Sr. No. 1 and 10, the respective subject is Agricultural Chemistry and Soil Science.

(b) For the post at Sr. No. 14, the candidate should possess M.Sc./Ph. D. degree in Animal Nutrition in the branch of Agricultural Science.

(c) For the post at Sr. No. 15, respective subject is Agricultural Extension.

(d) For the post at Sr. No. 16, the respective subject is Agricultural Meteorology/Meteorology.

(e) For the post at Sr. No. 20, the respective subject means Ph.D./Master's degree in any branch of Veterinary Science.

(f) For the post at Sr. No. 29, the respective subject means Ph.D / M.V.Sc. in the subject to Dairy Cattle Production/Animal Breeding/Animal Genetics.

(g) For the post at Sr. No. 37, the respective subject is Animal Reproduction.

(h) For the posts at Sr. No. 38, 39, the respective subject is Medicine.

(i) For the post at Sr. No. 40, the respective subject is Veterinary Pathology/Bacteriology/Parasitology.

(j) Out of two posts at Sr. No. 8, respective subject for one post is "Soil and Water Conservation Engineering" and the respective subject for another post is "Irrigation and Drainage Engineering".

(k) For the post at Sr. No. 21, the respective subject is "Irrigation and Drainage Engineering".

Note

(1) Maximum age limit as on **12-9-1988** will ordinarily be 40 years for the post at Sr. No 1, 4 to 15, 26, 27, 28 and 30 years for remaining posts. Maximum age limit is relaxable upto 5 years in deserving cases which will be at the discretion of the University. The age limit is not applicable to persons already employed in this University.

(2) Age relaxation for candidates belonging to SC/ST DT and NT/OBC will be as per the Maharashtra State Government Rules.

(3) The pay scales of the above posts carry all allowances admissible as per the rules of the University.

(4) If response from highly qualified and more experience candidates is adequate, those with less qualifications or experience may not be called for interview eventhough they fulfil the minimum qualifications prescribed for the posts.

(5) The fact that the posts are advertised does not mean that all the posts will be filled in.

(6) The post at Sr. No. 1, 3, 5, 7, 8, 10, 12, 14, 15, 18, 23 and 35 are sanctioned by the Indian Council of Agricultural Research, for limited period.

(7) The number of posts may be increased or decreased.

(8) Selected candidates can be posted or transferred at any of the campus/centres under the jurisdiction of the University.

(9) Nomenclature of the posts can be changed by the University as and when need arises.

(10) Incomplete applications and applications received after the last date shall not be taken into consideration.

(11) The applicants should satisfy all the requirements such as qualification, experience etc. on or before **12.9.1988.**

(12) Mere eligibility does not rest any right on the candidates for being called for the interview.

Canvassing in any form will Completely Disqualify a Candidate for Employment under this University.

M.D. Ambre
REGISTRAR

DOCTOR HARISINGH GOUR VISHWAVIDYALAYA

SAGAR

Admission Notice for M.Phil. Course 1988-89

Applications are invited for admission to M. Phil. Course for the session 1988-89 in the prescribed form which may be obtained from Deputy Registrar (Administration Research Section) on payment of Rs. 5/- (Rupees five only) in the following subjects:- English, Hindi, Sanskrit, Ancient Indian History, History, Mathematics, Psychology, Political Science & Public Administration and Education. The academic qualifications for admission to M. Phil. Programme will be as under:

(i) A person who has passed Master's Degree Examination of this University or any other University recognised equivalent thereto, with at least Second Division shall be eligible for admission to M. Phil. Course.

(ii) A person will be admitted to the M. Phil. Course in the same subject which has been offered for this Master's Degree.

The last date for receipt of applications completed in all respect is **31.8.1988.**

R.N. Dhawan
REGISTRAR

OFFICE OF THE REGISTRAR DIBRUGARH UNIVERSITY

DIBRUGARH

ESTABLISHMENT BRANCH

Advertisement No. 7/88

Applications are invited for the following posts:

1. Reader in Physics : One post.
2. Reader in Chemistry : One post.
3. Reader in Statistics : One post.
4. Reader in Anthropology : One post
5. Reader in Life Science : One post.
6. Reader in Assamese : One post.
7. Reader in History : One post.
8. Reader in English : One post.
9. Reader in Pol. Science : One post.
10. Reader in Economics : One post.
11. Reader in Commerce : One post.
12. Reader in Sociology : One post.
13. Reader in Mathematics : Two posts.
14. Reader in App. Geology: Two posts.
15. Lecturer in Anthropology : One post.
16. Lecturer in Pol. Science : One post.
17. Lecturer in Economics : One post.
18. Lecturer in Sociology : One post.
19. Lecturer in Life Science: Two posts
20. Lecturer in Commerce : Two posts.

Scale of Pay

1. **Reader:** Rs. 1200-50-1300-60-1900/ p.m. (Unrevised)
2. **Lecturer:** Rs. 700-40-1100-50-1600/ p.m. (Unrevised)

All posts, carry usual allowances admissible under the University rules in force from time to time and the incumbents will be eligible for contributory provident fund and Gratuity on confirmation as per rule of the University.

Essential Qualifications

A. For Reader : (a) Good academic record with a doctoral degree or equivalent published work. Evidence of being actively engaged in (i) Research (ii) Innovation in teaching methods or *(iii) Production of teaching materials.*

(b) At least five years experience of teaching or research provided that at least three years were as Lecturer or in equivalent position.

B. For Lecturer : (a) A Doctorate Degree or research work of an equally high standard: and

(b) Consistently good academic record with 1st or high 2nd Class (in the seven point scale) Master's Degree in a relevant subject or an equivalent degree of a foreign University. Having *regard to the need for developing inter*disciplinary programmes, the degree in (b) above may be in relevant subject.

Provided that if the selection committee is of the view that the research work of a candidate as evident either from his Thesis or from his published work is of very high standard, it may relax any of qualifications prescribed in (b) above.

Provided further that if a candidate having a Doctor's Degree or equivalent research work is not available or is not considered suitable a person possessing a consistently good academic record weightage being given to M. Phil or equivalent degree or research work of quality may be appointed provided he has done research work for at least two years or has practical experience in a research laboratory/Organisation on the condition that he will have to obtain a Doctor's Degree or give evidence of research work of equivalent high standard within eight years of appointment. failing which he will not be able to earn *future increments* until he fulfils those requirements.

Specialisation required:

1. **Reader in Physics — One post**
   - (i) Electronics.
   - (ii) Laser and optical physics.
   - (iii) Solid state physics.
2. **Reader in Chemistry — One post**
   Either i. Inorganic.
   or ii. Physical.
3. **Reader In Statistics — One post**
   - (i) Computer Science.
   - (ii) Industrial statistical quality control.
   - (iii) Mathematical programming.
   - (iv) Reliability.
4. **Reader in Anthropology** : One post.
   - (a) Basic Post-Graduate Degree in Anthropology with specialisations in pre-historic Archaeology/ Palaeoanthropology pre-history.

     OR
   - (b) Basic post-graduate degree in Anthropology with Research Degree or evidence of Research activities in the field of pre-historic Archaeology Palaeo-anthropology Prehistory.
5. **Reader in Life Science** : One post

   M. Sc. in Life Sciences or M.Sc. in Botany or in Zoology.

   Specialisation : Open.
6. **Reader in Assamese** : One post.

   M.A. in Assamese (Literature group) and/or Sanskrit (Kavya or literature group) and/or modern Indian literature with specialisation of comparative literature plus prescribed U.G.C. norms.
7. **Reader in History** : One post.
   Open.
8. **Reader in English** : One post,
   Open.
9. **Reader in Pol. Science** : One post.
   Open.
10. **Reader in Economics** . One post.
    Open.
11. **Reader in Commerce** : One post.
    Human Resource Management.
12. **Reader in Sociology** : One post.

    Urban Sociology Sociology of Development.
13. **Reader in Mathematics** · Two posts.
    - 1 (One) post : Computer Programming Numerical Analysis 'Relativity.
    - 1 (One) post : Abstract Algebra Topology Differential Geometry.
14. **Reader in Applied Geology** : Two posts.

    Exploration Geophysics Petroleum Geology Mining Geology Stratigraphy Geostatistics and Geomathematics.
15. **Lecturer in Anthropology** : One post.
    - (a) In Advanced Social and Cultural Anthropology.

      or
    - (b) In physical Anthropology with a basic postgraduate degree in Anthropology.
16. **Lecturer in Pol. Science** : One post.
    Open
17. **Lecturer in Economics** · One post.

    Mathematical Economics and Econometrics.

    None should apply who did not have Mathematics as a subject and honours in Economics at the B.A.' B.Sc. level.
18. **Lecturer in Sociology** : One post.
    Open.
19. **Lecturer in Life Sciences** : Two posts.
    - 1 (One) : M.Sc. in Life Sciences or M.Sc. in *Zoology. Field of specialisation : Entomology*.
    - 1 (One) : M.Sc. in Life Sciences or *in Botany. Field specialisation :* Ecology.
20. **Lecturer in Commerce** · Two posts.
    - 1 (One) : Accountancy.
    - 1 (One) : open.

9 (Nine) copies of applications in plain papers giving full bio-data including (i) Name in full (in Block letters). (2) Father's name (3) Date of birth, (4) (a) Parmanent address, (b) present address, (5) Present Occupation if any. (6) Present salary drawn if any and the salary expected (7) Detailed academic career from Matriculation upwards showing Division Class, agreegate percentage of marks. School College 'University from which appeared (Attested copies of Mark sheets. Certificates should be enclosed), (8) Details of Appointment held with designation, Duration, nature of works and name of employers, (9) Research Contributions with copies of reprints or research experiences supported by documentary evidence. (10) Name and address of Two referees not related to the candidate *together with an application fee of* Rs 5 - (Rupees five) only by crossed Indian Postal Order drawn in favour of the Registrar. Dibrugarh University should reach the undersigned on or before **31st August, 1988**

The number of this advertisement and name of the post applied for must be referred to in the application. Persons already in employment should apply from the present employer.

All reprints of the research papers published must be attached. Applications not is conformity with the above requirements will not be entertained

Candidates will be required to appear at an interview if and when called for, but no T.A will be admissible for this purpose.

Dr. D.H. Goswami
REGISTRAR

SCHOOL OF PLANNING AND ARCHITECTURE

(Deemed to be a University)

4, Block-B, Indraprastha Estate.
New Delhi-110 002

Applications are invited from Indian Nationals for the post of

Registrar

in the School of Planning and Architecture, New Delhi.

Pay-Scale : Rs. 3000-100-3500-125-5000. (Likely to be revised)

Age limit : Below 30 years as on 13.9.1988. Relaxable for displaced persons, SC, ST Ex-servicemen/Commissioned Officers including ECOs/ SSCOs/meritorious Sportsmen/Sports Women and residents of Assam. Age is also relaxable for employees of the Government, Semi-Government Undertaking/Autonomous Body *and for those* having exceptional qualifications and experience.

Qualifications

Essential . (i) At least a Second Class Bachelor's Degree or equivalent qualification in Engineering/Architecture/ Technology of a recognised University/ Institution

Or

At least a Second Class Bachelor's Degree in Arts Commerce/Science and a Master's Degree or equivalent Post-Graduate qualification of a recognised University Institution.

(ii) Ten Years' experience in an executive position in administration and financial affairs and control in recognised institution/organisation.

Desirable : Familiarity with admissions, examinations, Committees, Council meetings, Sensitiveness and constructive approach to the problems of students, personnel and faculty and capacity to develop corporate life

Qualifications for the above post are relaxable at School's discretion.

Service Conditions & Benefits . The post carries benefits of General Provident Fund-cum-Gratuity-cum-Pension and Central Government Health Scheme Services on appointment. The period of probation is one year. Allowances are as admissible to comparable posts in the Government of India.

Procedure for applying : Application *on prescribed form* accompanied by *attested copies of certificates and testimonials* and crossed Indian Postal Order of Rs. 5 - (non-refundable) as the application fee (SC ST candidates are exempted from the payment of the fee) in favour of School of Planning and Architecture, New Delhi payable at New Delhi Post Office should reach the Registrar of the School by **12th September, 1988**. Request for form must be accompanied by self-addressed unstamped 25 cm. x 12 cm envelope Applicants who are in the employment of Government Semi-Government Undertaking 'Autonomous Body most send their application through proper channel.

Candidates who had applied for the post of Registrar in response to the earlier advertisement in the newspapers on 17th February, 1988 need *not* apply again on the prescribed Application Form. However, they may send their willingness for consideration of their candidature against the advertisement by intimating the Registrar of the School by sending a letter on plain paper in this regard.

Candidates from outside Delhi called for interview will be paid IInd Class Railway fare for both the journeys (within India).

SHASTRI INDO-CANADIAN INSTITUTE

Development of Canadian Studies in India

FELLOWSHIPS FOR INDIAN SCHOLARS IN HUMANITIES AND SOCIAL SCIENCES

FOR THE ACADEMIC YEAR 1989-90

CATEGORIES OF FELLOWSHIPS

FACULTY ENRICHMENT
FACULTY RESEARCH
GRADUATE STUDENT (DOCTORAL RESEARCH)

ELIGIBILITY
FACULTY ENRICHMENT

1. The applicant should be a permanent member of the academic staff of a recognized institution of higher education in India.

2. He/she should provide evidence of interest or involvement in Canadian Studies. This may be demonstrated by courses already given, research undertaken, extra-mural activities or other significant experience such as study tour to Canada, or active membership in the Indian Association for Canadian Studies

FACULTY RESEARCH

1. The applicant should hold permanent faculty position in an Indian academic degree granting institution: or should be scholars at research and policy planning institutes which undertake significant work on Canada or the Canada-India bilateral relationships.

2. Should hold either a doctorate or equivalent postgraduate qualification.

3. Should be in a position to share their research experience on their Canadian related topic with other scholars prior to publication.

GRADUATE STUDENT (DOCTORAL RESEARCH)

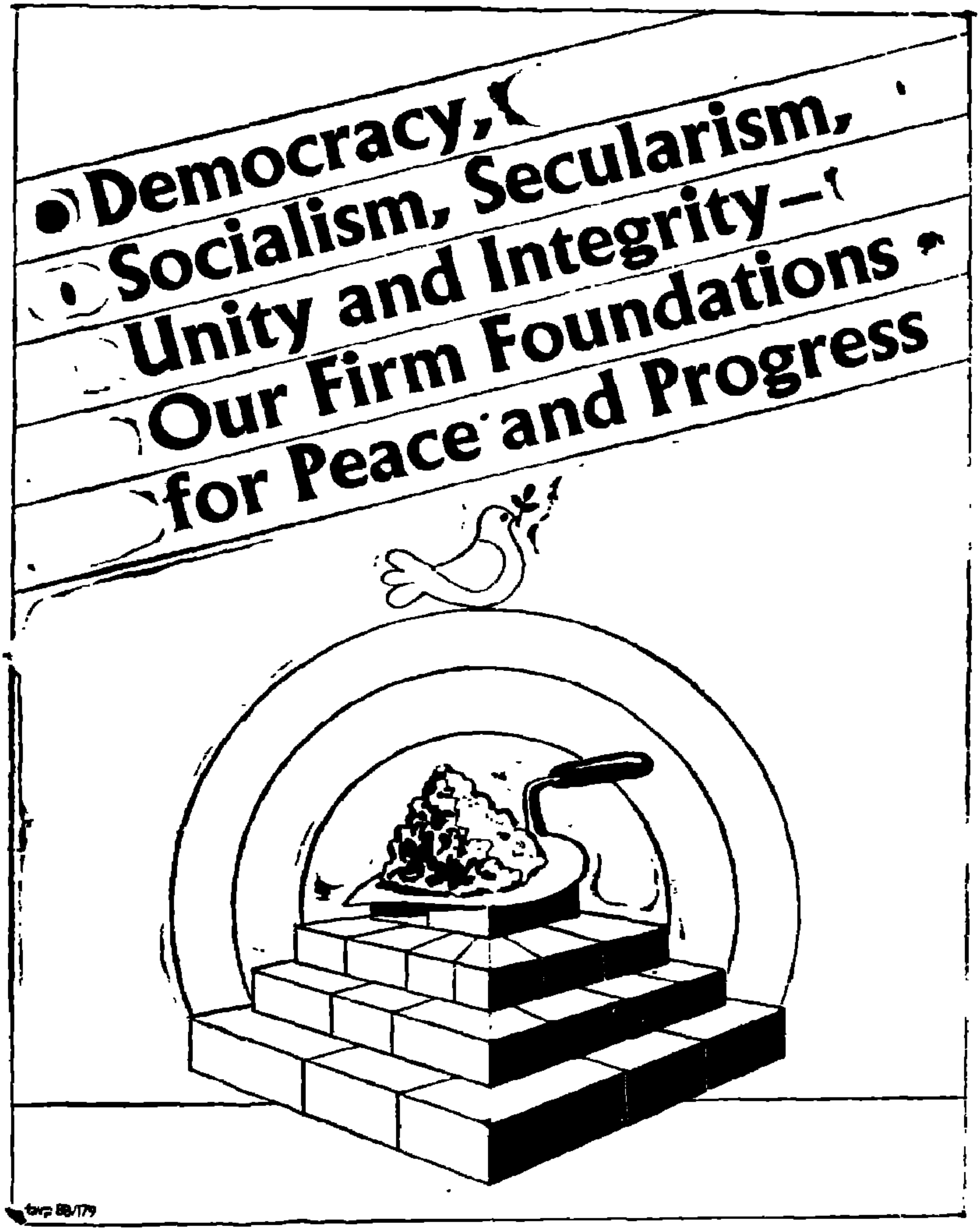
This program is for postgraduate students who have completed their course work and are now doing research for their dissertation.

The subject of dissertation must be related to Canada.

LAST DATE FOR RECEIPT OF COMPLETED APPLICATIONS IS NOVEMBER 15. 1988

PLEASE WRITE FOR FURTHER DETAILS AND APPLICATION FORM BY SENDING SELF ADDRESSED Re. 1/- STAMPED ENVELOPE (5" x 10") TO :

THE RESIDENT DIRECTOR
SHASTRI INDO-CANADIAN INSTITUTE
92. GOLF LINKS. NEW DELHI-110003



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